



Service & Installation Instructions

Keep this booklet for future reference

- BMD-48 SERIES
- BMD-51 SERIES
- BMD-54 SERIES
- BMD-G SERIES
- BSD SERIES
- BSD-T SERIES

For Additional Copies Please Contact:

Barker Sales & Service
703 Franklin Street
P.O. Box 478
Keosauqua, Iowa 52565
Tel: 319/ 293-3777
Fax: 319/ 293-3776

Or Visit:
www.barkersales.com

Table of Contents

General Information

Case Descriptions	-3
Shipping Information	-3
Case Sections	
BMD Series	-4
BSD Series	-5
Mechanical View	-5

Installation Instructions

Location	-6
Crate Removal	-6
Compressor	-6
Case Exterior Loading	-6
Leveling	-6
Joining Lineups	-6
Drain, Electrical and Refrigeration	
Connections	-6
Humidifier System	-7
Glass Adjustment	-7
Shelving	-8
Installation Checklist	-8

Refrigeration Information

Case Operation	-9
Typical Component Settings	-9
Electronic Thermostat	-9
Refrigeration Loads	-10

Electrical Information

Amperage Information	-11
Wiring Color Code	-11
Ballast Information	-12
Wiring Diagrams	
BMD-R	-13
BMDG-R	-18
BSD-R	-23
BSDT-R	-28
BMD-SC	-33
BMDG-SC	-38
BSD-SC	-43
BSDT-SC	-48

Maintenance Information

Cleaning	-53
Light Bulb Replacement	-53
Load Limits	-53

Service

Evaporator Coil Layout	-54
Troubleshooting Guide	-56
Service Department	-57
Parts	-57

Warranty	-58
----------	-----

IMPORTANT!!
KEEP FOR FUTURE REFERENCE

General Information

This booklet contains information on: This booklet contains information on:

BMD Series

Service, Multi-Deck Deli Case, with Front Lift Glass

BMDG Series

Service, Muti-Deck Deli Case, with Front Lift Glass and Gravity Coil Refrigeration

BSD Series

Service, Single Deck Deli Case, with Front Lift Glass

BSDT Series

Service, Single Deck Deli Case, with Front Tilt Glass

The BMD and BSD Series conform to the following standards



Shipping Information

IMPORTANT!

FOR YOUR PROTECTION PLEASE READ AND OBSERVE THE FOLLOWING INSTRUCTIONS:

Transportation companies assume all liability from the time a shipment is received by them until the time it is delivered to the consumer. Our liability ceases at the time of shipment.

All shipments leaving our plant have been carefully inspected. If a shipment arrives with the crating or packaging damaged, have the carrier note the condition on the receipt. Check as soon as possible for concealed damage.

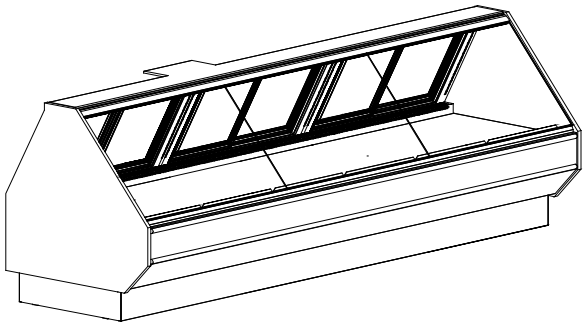
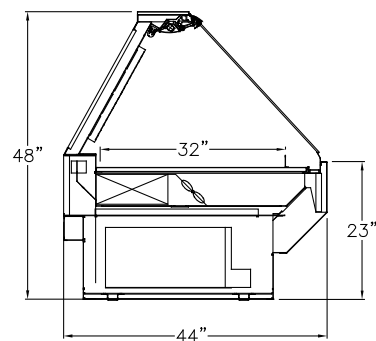
If it is found that the shipment has been damaged in transit, please DO NOT return it to us, but notify and file a claim with the carrier at once. **FAILURE TO FOLLOW THIS PROCEDURE WILL RESULT IN REFUSAL BY THE CARRIER TO HONOR ANY CLAIMS WITH A CONSEQUENT LOSS TO THE CONSUMER.**

If a UPS shipment has been damaged, retain the damaged material and the carton and notify us at once. WE will file a claim.

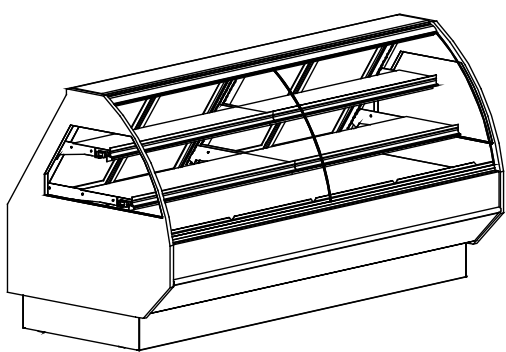
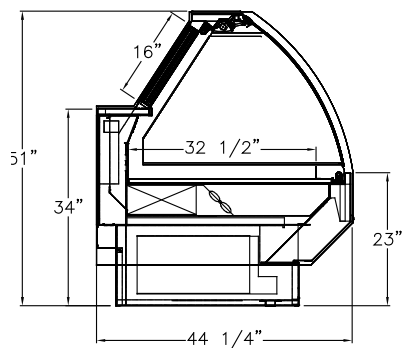
GOODS SHOULD NOT BE RETURNED FOR CREDIT UNLESS AUTHORIZED BY OUR SALES DEPARTMENT.

Case Drawings

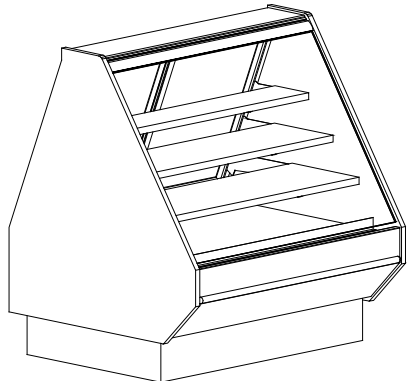
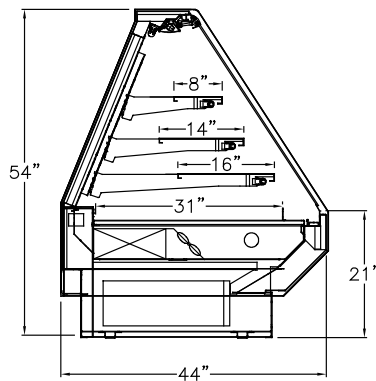
BMD-48 Series



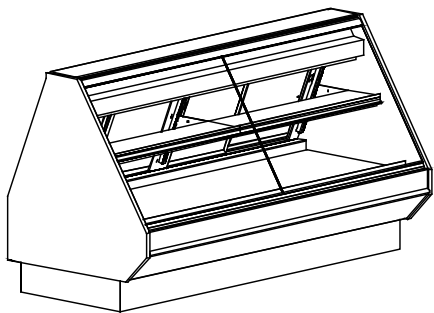
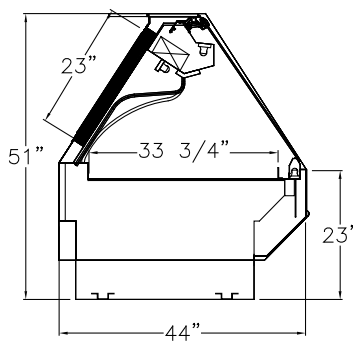
BMD-51 Series



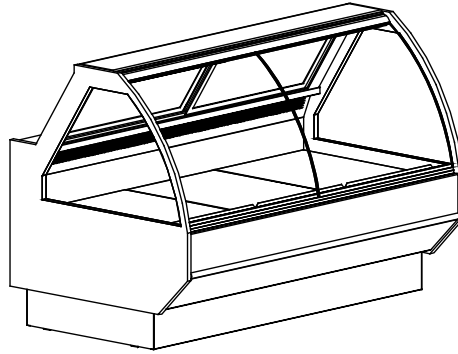
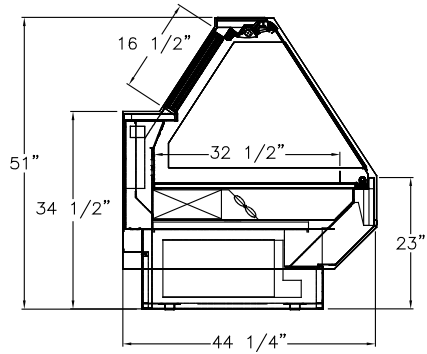
BMD-72 Series



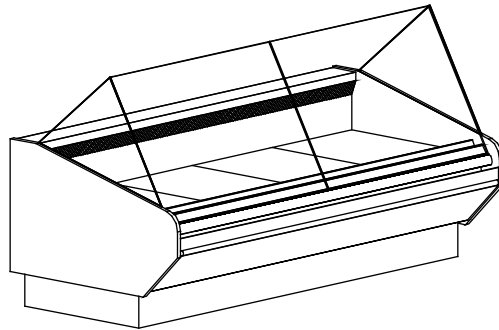
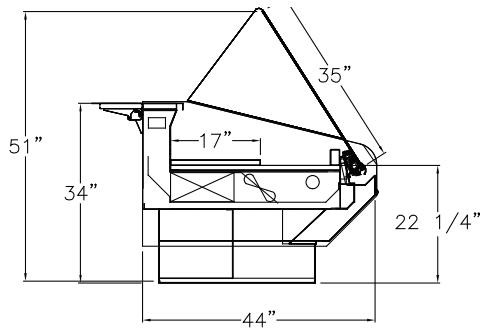
BMD-G Series



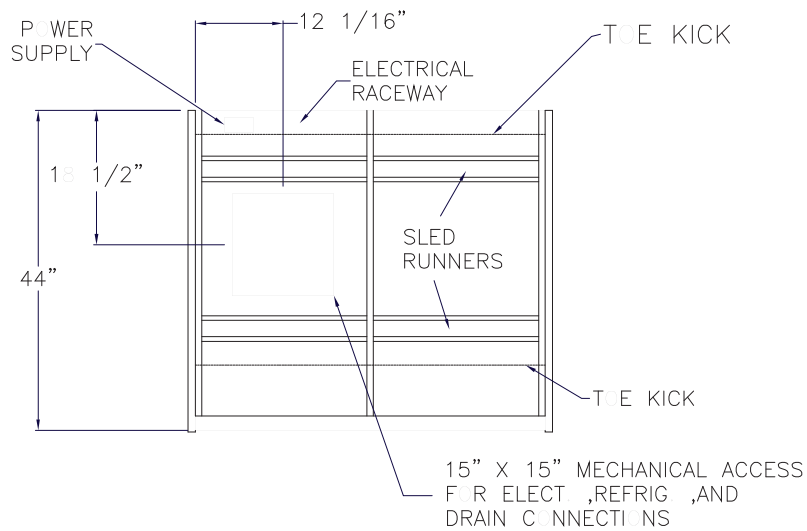
BSD Series



BSD-T Series



MECHANICAL VIEW (for all models shown)



Installation Instructions

Location

This refrigerated display case has been designed for displaying and storing perishable food product. It is engineered for air-conditioned stores with a maximum ambient of 75° F and 50% relative humidity.

When selecting the location for placement of this case, avoid the following conditions:

Excessive air movement

- Doors
- Air-conditioned vents
- Other air sources

Excessive heat

- Windows
- Sun
- Flood lamps 8 feet or less from the product
- Other heat sources

Crate Removal

Move case as close as possible to its location. Remove all crating and shipping braces above the shipping pallet. Loosen the plastic dust cover from the pallet, but leave cover over the case to protect it while removing the case from the pallet. Carefully, lift case up and off the pallet. Remove dust cover. Installation hardware ships in an installation packet located inside the case.

Compressor

The 6', 8', 10 and 12' Self-Contained cases are equipped with a shipping block under the compressor. This block must be removed upon installation. Loosen all four nuts on the compressor hold down screws. Lift or pry the compressor up and remove the shipping block. DO NOT retighten screws, as the compressor should be left free to float on the spring mounts.

FAILURE TO REMOVE THE SHIPPING BLOCK WILL RESULT IN EXCESSIVE NOISE, REFRIGERANT LEAKS AND WILL VOID WARRANTY PROTECTION.

Case Exterior Loading

These cases are not designed for excessive external weight. DO NOT WALK ON THE TOP OF THE CASES. Walking on top of cases could cause personal injury and damage to the case.

Leveling

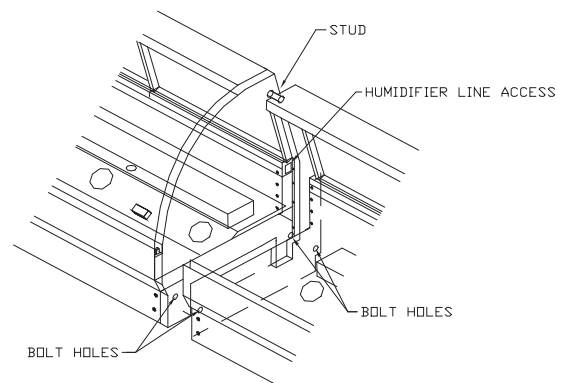
To ensure proper operation of the refrigeration system and drainage of the condensate, the case MUST BE LEVEL. Use a carpenter level to level front to back and side to side. Shim as necessary.

Joining Lineups

1. Begin all lineups leveling from the highest point of the store floor.
2. Remove front and rear toe kicks by removing screws on all sides. Set and level first case.
3. Apply foam tape to facing ends of lineup. Level second case to first case and seal with a good grade silicone on all edges of each case.
4. Line up bottom boltholes in lower toe kicks (bolts for these are located in the installation packet inside the case) and line up bolt stud located in top rear strut with bolthole in adjoining case. Slide cases together. Insert lower bolts and place nuts on bolts. Tighten securely.

THE FRONT OF THE CASES MUST BE FLUSH!

5. A top joining plate is also located in the canopy of the case. Ensure that case is properly leveled so that the screw holes in this plate align over the screw holes in the adjoining case. Shim as necessary.
6. Screw in top plate and ensure all bolts are fastened tightly.
7. Seal all seams. Use metal U-channel located inside case to seal and cover where interior case beds join.



Drain, Electrical and Refrigeration Connections on Remote Cases

1. Drains are located in the center of the case. Connect PVC drains to existing floor drains. Provide as much downhill slope as possible and avoid long runs of drain lines. Do not install condensate drains in contact with non-insulated suction lines in order to prevent condensate from freezing. Install the 1" PVC trap, which is provided with the case. All drains must be trapped.

- Electrical connections are made through the power supply box of each case, which can be accessed by removing the back panel above the toe kick. The power supply is located in the raceway as shown to the right. Voltage requirements and component amperes can be found in the electrical section of this manual, but always check the data tag located on the exterior of the case. Case must be grounded.
- Refrigeration connections will be made through the refrigeration stub up located on the customer left side of the case (see mechanical view). See refrigeration information section for caseloads and recommended settings. Refrigeration lines may be headed together for all cases in a lineup, if desired, by lines through the access area under the case. Seal all access holes with a good grade silicon or foam tape to prevent recirculation. All lines must be correctly sized.

For proper refrigeration performance, PRODUCT MUST NOT BE PLACED IN A POSITION WHERE IT MAY AFFECT THE AIR CURTAIN. Air discharge and return air vents must remain unobstructed.



Humidifier System -

This optional feature is installed at the factory.

Initial hook-up is as follows:

- Read installation/service guide, which accompanies unit.
- If connecting a lineup, which shares a common control system, connect companion case discharge lines.
- For all cases, connect water supply.
NOTE: It is recommended that a pre-filter be added to the water supply.
- Check for leaks.

Adjust water pressure as needed. See manufacturers installation guide for further information.

Glass Adjustment

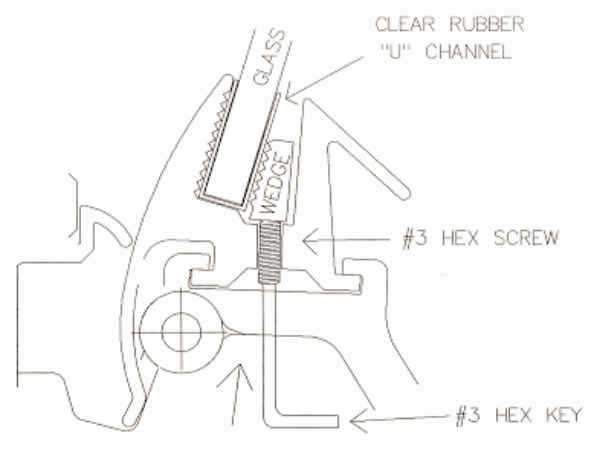
Lift Glass is installed at the factory with the case perfectly level, if adjustments need to be made to align the glass first check to insure the case was properly leveled during installation.

NOTE: This is a 2-person operation. One person must hold the glass at all times.

- Lift the glass to its highest position as shown in drawing to the right.
- Loosen allen screws. (See profile next page.)
- Starting at the right side, tap the wedge with a #2 standard screwdriver. Repeat procedure on the left side. Continue working right to left until the wedge recesses into the aluminum extrusion.
EXTREME CARE MUST BE TAKEN NOT TO TAP THE WEDGE TOO HARD.
- Slide the glass right or left as needed.
- Tighten the right allen screw while holding the left side of the glass firmly. Be careful to keep the glass level.
- Tighten the remaining allen screws.
- Lower glass into position. Repeat as necessary until glass is completely level.

NOTE: the entire glass clamp and glass can be moved sideways by loosening the allen screws that are located in the glass clamp hinges.

PROFILE OF GLASS CLAMP



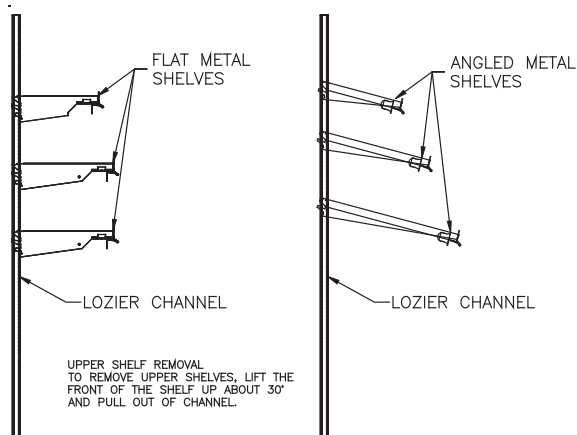
Doors

Rear load doors are shipped inside the case. Push top of doors all the way into top door tracks. Push bottom of door over bottom door tracks and lower over tracks. Doors are labeled inside and outside for easy installation.

Optional Shelving

Shelves are shipped separately. To place shelving, hold shelf straight and fit brackets straight into channel. Place shelf directly above light outlet. Plug in light making certain the plug is fully engaged. All cases with shelf lights are equipped with an interlocking plug system. Shelf lights will not operate if plugs are not fully seated.

NOTE: If the shelf light is not in use, the plug attached to the receptacle must be fully seated.



Installation Checklist

Before supplying electrical power and starting case check the following:

1. Compressor Area (For Self-contained cases).
Remove shipping block on units with semi-hermetic compressors. Check location of controls.
2. Evaporator Area.
Check to ensure evaporator fan pressure plates are secure and in proper position NOTE: Hinged portion of pressure plates are secured for shipping with mounting screws. Screws do not have to be removed for case operation but must be removed to use hinge.
3. Lighting System
Check to ensure male plugs are completely inserted in female sockets and that all lamps are securely seated in light fixture.
4. Case Leveling
Visually check case. If lift glass is out of adjustment or case looks out of square, use a carpenter's level and shim as needed.

After supplying power to the case and starting unit:

1. Check to ensure all fans are operational.
2. Check all lights.
3. Check case temperature and adjust thermostat as needed. See refrigeration section of this manual for case settings.

Refrigeration Information

Case Operation

Refrigeration

The refrigeration in this case is thermostatically controlled. The case refrigerates until the cut out point on the thermostat is reached. The thermostat opens, cutting power to the liquid line solenoid. The compressor continues to run, the system pumps down causing the pressure switch to open, cutting power to the compressor. Note: Some cases may be ordered with EPR valves to control case temperature. For proper refrigeration performance, **PRODUCT MUST NOT BE PLACED WHERE IT WILL AFFECT THE AIR CURTAIN.**

Defrost

This case is equipped with an OFF CYCLE defrost system. The timer cuts the power to the liquid solenoid. The unit stays in off cycle defrost until the defrost timer re-energizes the liquid solenoid. NOTE: The evaporator fan runs continuously.

Typical Component Settings

For Self Contained Cases

Thermostat cut out

Deli, Bakery	28°-30°
Fresh Meat, Seafood	26°

CRO valve

R-22	55-58
404A	75
134A	N/A

TXV: 10° Superheat

Pressure switch

R-22	Low - 20 lb/55 lb	High - 350 lb
404A	Low - 20 lb/55 lb	High - 350 lb
134A	Low - 7 lb/25 lb	High - 225 lb

For Remote Cases

Thermostat cut out

Deli, Bakery	28°-30°
Fresh Meat, Seafood	26°

EPR Valve (saturated suction temp.)

Deli	18°-20°
Fresh Meat & Seafood	14°

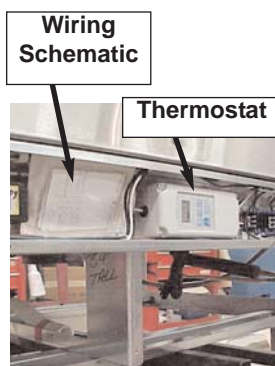
TXV 10° superheat

NOTE: The above settings are approximate and will vary slightly with product load, lighting, store ambient conditions etc. Evaporator fans run constantly.

Electronic Thermostat

The electronic thermostat is located at the rear of the case in the electronic raceway. The thermostat is equipped with a liquid crystal display providing a constant readout of the sensed temperature.

NOTE: The LCD display will be blank during defrost. A touch keypad that allows the users to select the set point temperature, differential and the heating /cooling modes.



Programming Steps for the ETC, Electronic Temperature Control

All thermostats are pre-set and cycle checked at the factory.

- STEP 1: Press the set key once to access the Fahrenheit/Celsius mode. The display will display either **F** degrees Fahrenheit or **C** for degrees Celsius. Press the **up** arrow or the **down** arrow so the display indicates **F**.
- STEP 2: Press the set key again to gain access to the setpoint. The LCD will display the current Setpoint and the **S1** will be blinking. Press the **up** arrow to increase or the **down** arrow to decrease the temperature setting.
- STEP 3: Press the set key again to gain access to the differential. The LCD will display the current differential and the **DIF 1** will be blinking. This should be set at 2°F.
- STEP 4: Press the set key again to gain access to the cooling or heating mode. The LCD will display the current mode. Press either the **up** arrow or the **down** arrow to set the display in the **C1**, cooling mode.
- STEP 5: Press the set key once more and the programming is complete. Set the lock to keep the set point.

STEP	DISPLAY INDICATION	DESCRIPTION
1.	F or C	Fahrenheit or Celsius Scale
2.	S1 (blinking)	Setpoint Temperature
3.	DIF (blinking)	Differential Temperature
4.	C1/H1	Cooling or Heating Mode

Refrigeration Loads

Model	BTU Lin/F t	Evap Temp	Defros t
BMD Series-enclosed base			
BMD-4	650	+20°	20"/4hr.
BMD-6	650	+20°	20"/4hr.
BMD-8	650	+20°	20"/4hr.
BMD-10	650	+20°	20"/4hr.
BMD-12	650	+20°	20"/4hr.

BMD Series- pedestal base or bullet le gs

BMD-4	650	+20°	20"/4hr.
BMD-6	650	+20°	20"/4hr.
BMD-8	650	+20°	20"/4hr.
BMD-10	650	+20°	20"/4hr.
BMD-12	650	+20°	20"/4hr.

BMD Gravit y Coil Series

BMD-G-4	425	+15°	90"/24 hr.
BMD-G-6	425	+15°	90"/24 hr.
BMD-G-8	425	+15°	90"/24 hr.
BMD-G-10	425	+15°	90"/24 hr.
BMD-G-12	425	+15°	90"/24 hr.

BSD Series-enclosed base

BSD-4	450	+20°	20"/4hr.
BSD-6	450	+20°	20"/4hr.
BSD-8	450	+20°	20"/4hr.
BSD-10	450	+20°	20"/4hr.
BSD-12	450	+20°	20"/4hr.

BSD Series- pedestal base or bullet le gs

BSD-4	450	+20°	20"/4hr.
BSD-6	450	+20°	20"/4hr.
BSD-8	450	+20°	20"/4hr.
BSD-10	450	+20°	20"/4hr.
BSD-12	450	+20°	20"/4hr.

BSD Tilt Glass Series

BSD-T-4	450	+20°	20"/4hr.
BSD-T-6	450	+20°	20"/4hr.
BSD-T-8	450	+20°	20"/4hr.
BSD-T-10	450	+20°	20"/4hr.
BSD-T-12	450	+20°	20"/4hr.

Electrical Information

Remote Case Data - Electrical 120 Volt				
Model	Evap Fans	Cornice & Nose Lts	Shelf Lts	Anti-Sweat Heaters

BMD Series-enclosed base

BMD-4	0.6	0.76	0.49	NA
BMD-6	0.6	0.95	0.75	NA
BMD-8	1.2	1.5	0.95	NA
BMD-10	1.2	2.25	1.54	NA
BMD-12	1.8	2.25	1.54	NA

Add 5 amps if a humidification system is added. A separate power source is not needed.

BMD Series- pedestal base or bullet lights

BMD-4	0.55	0.76	0.49	2.08
BMD-6	1.1	0.95	1.75	4.16
BMD-8	1.1	1.5	0.95	4.16
BMD-10	1.1	1.54	1.54	4.16
BMD-12	1.65	1.54	1.54	6.24

Add 5 amps if a humidification system is added. A separate power source is not needed.

BMD Gravity Coil Series

BMD-G-4	NA	0.76	NA	NA
BMD-G-6	NA	0.95	NA	NA
BMD-G-8	NA	0.95	NA	NA
BMD-G-10	NA	1.54	NA	NA
BMD-G-12	NA	1.54	NA	NA

BSD Series-enclosed base

BSD-4	0.6	0.76	NA	NA
BSD-6	0.6	0.95	NA	NA
BSD-8	1.2	1.5	NA	NA
BSD-10	1.2	2.25	NA	NA
BSD-12	1.8	2.25	NA	NA

Add 5 amps if a humidification system is added. A separate power source is not needed.

BSD Series- pedestal base or bullet lights

BSD-4	0.6	0.76	NA	2.08
BSD-6	0.6	0.95	NA	4.16
BSD-8	1.2	1.5	NA	4.16
BSD-10	1.2	1.54	NA	4.16
BSD-12	1.8	1.54	NA	6.24

Add 5 amps if a humidification system is added. A separate power source is not needed.

BSD Tilt Glass Series

BSD-T-4	0.6	NA	NA	NA
BSD-T-6	1.2	NA	NA	NA
BSD-T-8	1.2	NA	NA	NA
BSD-T-10	1.2	NA	NA	NA
BSD-T-12	1.8	NA	NA	NA

DRY CASES - USE LIGHTING SPECIFICATIONS

Additional Loads for Self-Contained Units					
HP	Voltage	RLA/LRA	Cond Fan	Pan Heater	Air Sweep Fan

1/3	120-1-60	5.6/29	0.58	5.0	0.52
1/2	120-1-60	9.4/51	1.4	6.6	0.78
3/4	120-1-60	9.8/65	1.7	8.3	1.04
1	120-208 1-60	5.7/40	0.94	4.8	1.3
1	120-208 1-60	5.7/40	0.94	4.8	1.56

1/3	120-1-60	5.6/29	0.58	5.0	0.26
1/2	120-1-60	9.4/51	1.4	6.6	0.52
3/4	120-1-60	9.8/65	1.7	8.3	0.52
1	120-208 1-60	5.7/40	0.94	4.8	0.52
1	120-208 1-60	5.7/40	0.94	4.8	0.78

1/2	120-1-60	7/36	0.7	5.0	0.52
1/2	120-1-60	9.4/51	1.3	6.6	0.78
3/4	120-1-60	11.8/66.3	1.64	8.3	1.04
1	120-1-60	8.2/65	1.7	8.3	1.3
1	120-1-60	11.4/93	1.7	8.3	1.56

1/3	120-1-60	5.6/29	0.58	5.0	0.52
1/2	120-1-60	9.4/51	1.4	6.6	0.78
3/4	120-1-60	9.8/65	1.7	6.6	1.04
1	120-208 1-60	5.7/40	0.94	4.8	1.3
1	120-208 1-60	5.7/40	0.94	4.8	1.56

1/3	120-1-60	5.6/29	0.58	5.0	0.26
1/2	120-1-60	9.4/51	1.4	6.6	0.52
3/4	120-1-60	9.8/65	1.7	6.6	0.52
1	120-208 1-60	5.7/40	0.94	4.8	0.52
1	120-208 1-60	5.7/40	0.94	4.8	0.78

1/3	120-1-60	5.6/29	0.58	5.0	0.52
1/2	120-1-60	9.4/51	1.4	6.6	0.78
3/4	120-1-60	9.8/65	1.7	6.6	1.04
1	120-208 1-60	5.7/40	0.85	4.8	1.3
1	120-208 1-60	5.7/40	0.85	4.8	1.56

Fans

REMOTE CASES - 20 MINUTES DEFROST EVERY 4 HOURS

Wiring Color Code

Green-----Ground	Orange-----Thermostat
Black-----Hot	Orange-----Liquid Solenoid
White -----Neutral	Purple -----Hot Gas Defrost
Red -----208/220 Only	Purple -----Defrost Terminator
Brown -----Interlock System	Gray -----Light Switch
	Black/White -----Pressure Switch

Secondary Wiring Color Code

Red -----Lights
Yellow -----Lights
Blue-----Lights

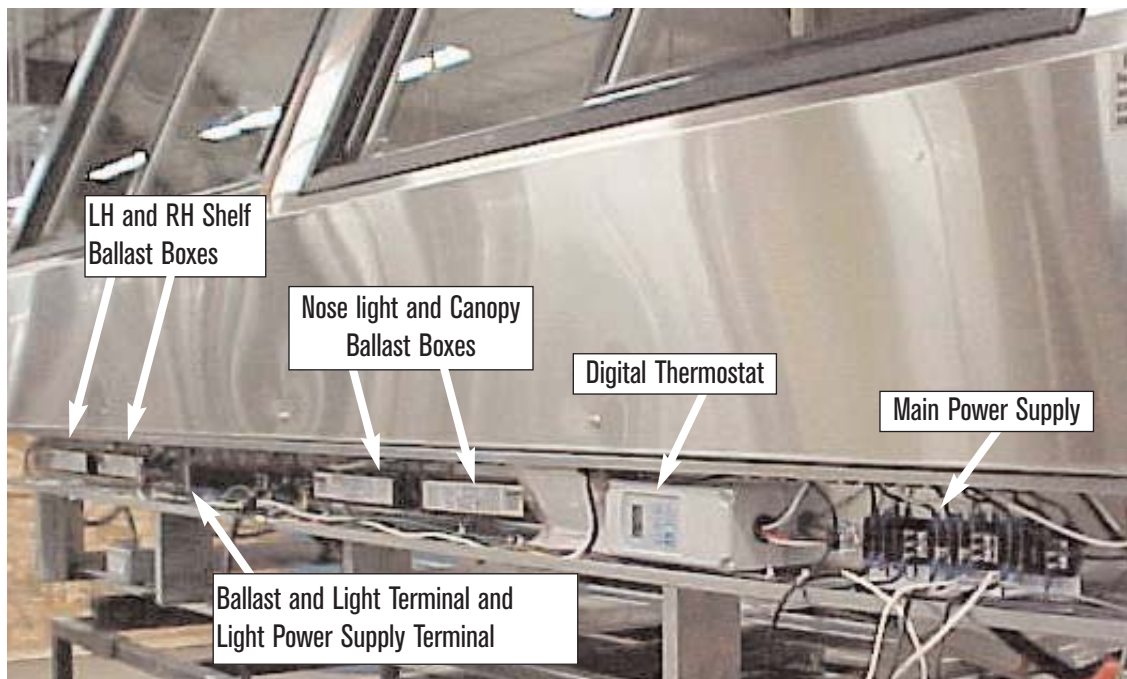
SEE BALLAST DIAGRAM FOR EACH CASE

NOTE: Case must be grounded

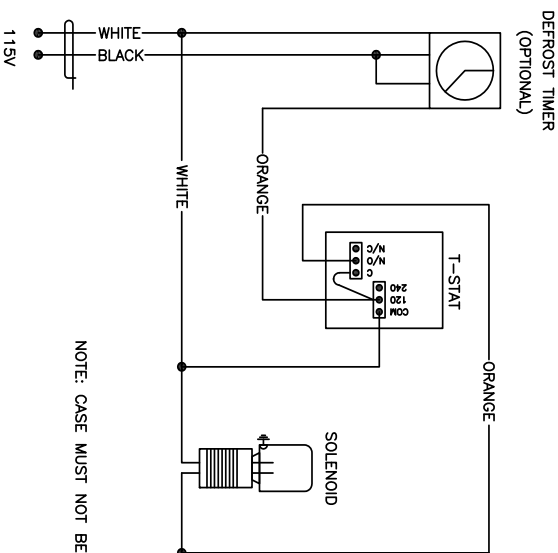
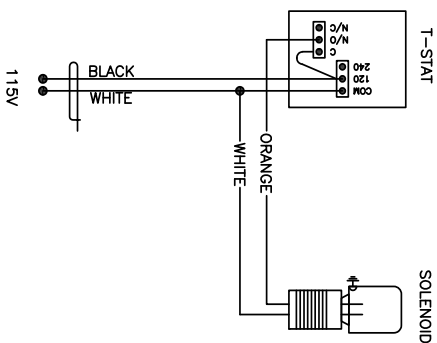
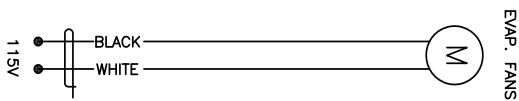
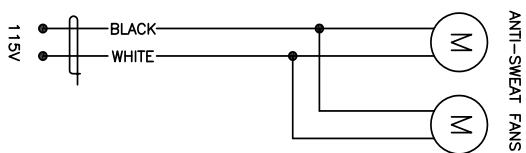
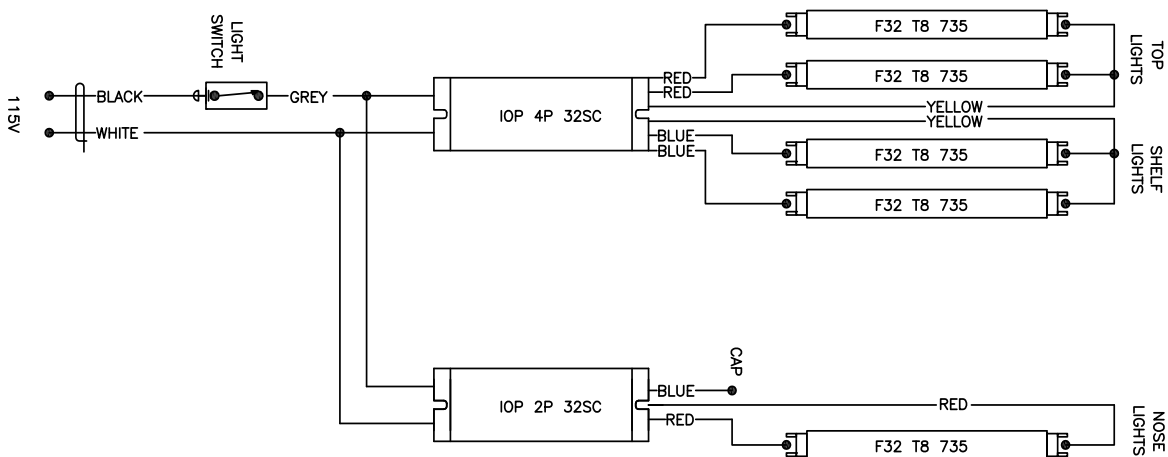
Ballast Information

Ballasts are located in the electronic raceway at the rear of the case.

Model		Model	
BMD-4	(1) 3P, (1) 2P	BSD-4	(1) 3P
BMD-6	(2) 4P, (1) 2P	BSD-6	(1) 4P, (1) 2P
BMD-8	(2) 4P, (1) 2P	BSD-8	(1) 4P, (1) 2P
BMD-10	(5) 2P	BSD-10	(3) 2P
BMD-12	(5) 3P	BSD-12	(3) 3P
BMD-4G	(1) 3P	BSD-4T	(1) 2P
BMD-6G	(1) 4P, (1) 2P	BSD-6T	(1) 2P
BMD-8G	(1) 4P, (1) 2P	BSD-8T	(1) 2P
BMD-10G	(2) 4P	BSD-10T	(1) 3P
BMD-12G	(3) 3P	BSD-12T	(1) 3P



NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.



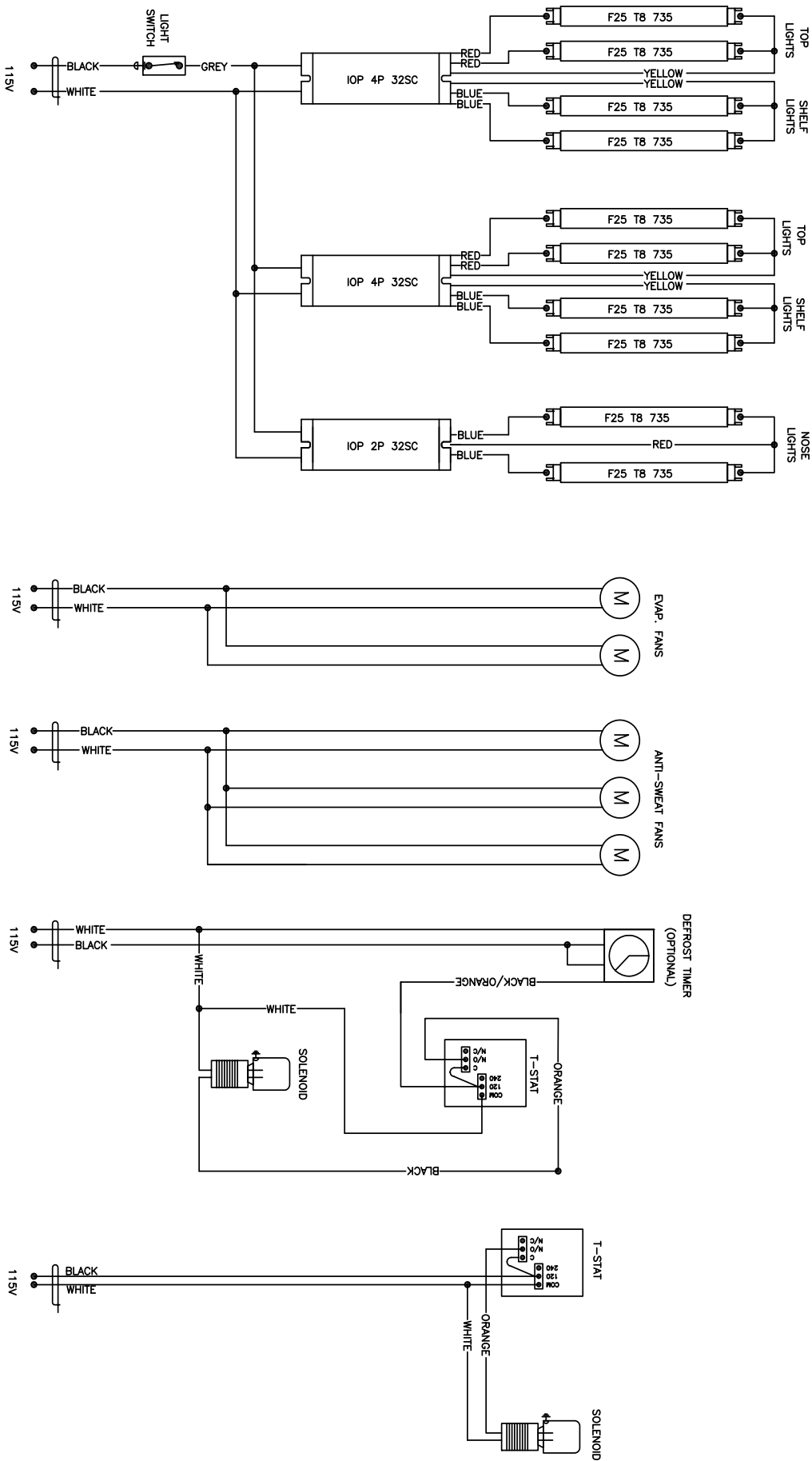
VOLT.	120-1-60
FANS	1.12
LIGHTS	1.25
BTU'S	650
EVAP. TEMP.	+20°

NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	Bulldog Co.	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMD-4 R	DRAFTER	SCALE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM		NONE	

NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
FANS	1.38
LIGHTS	1.7
BTU'S	650
EVAP. TEMP.	+20°

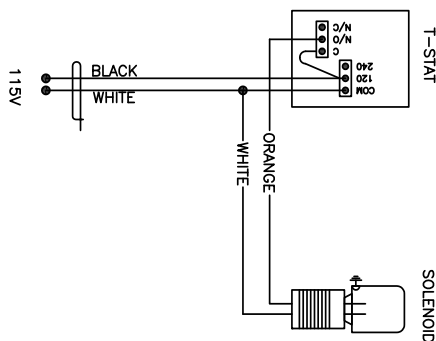
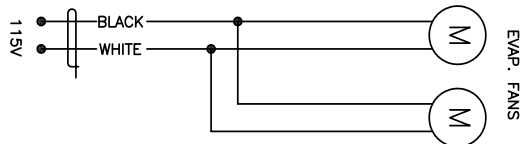
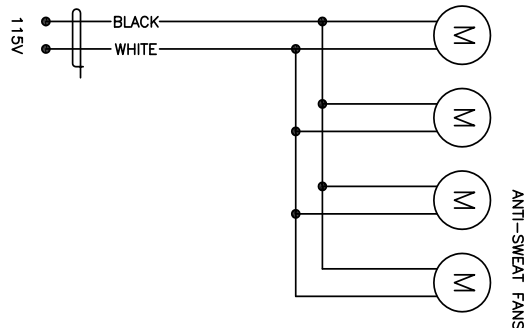
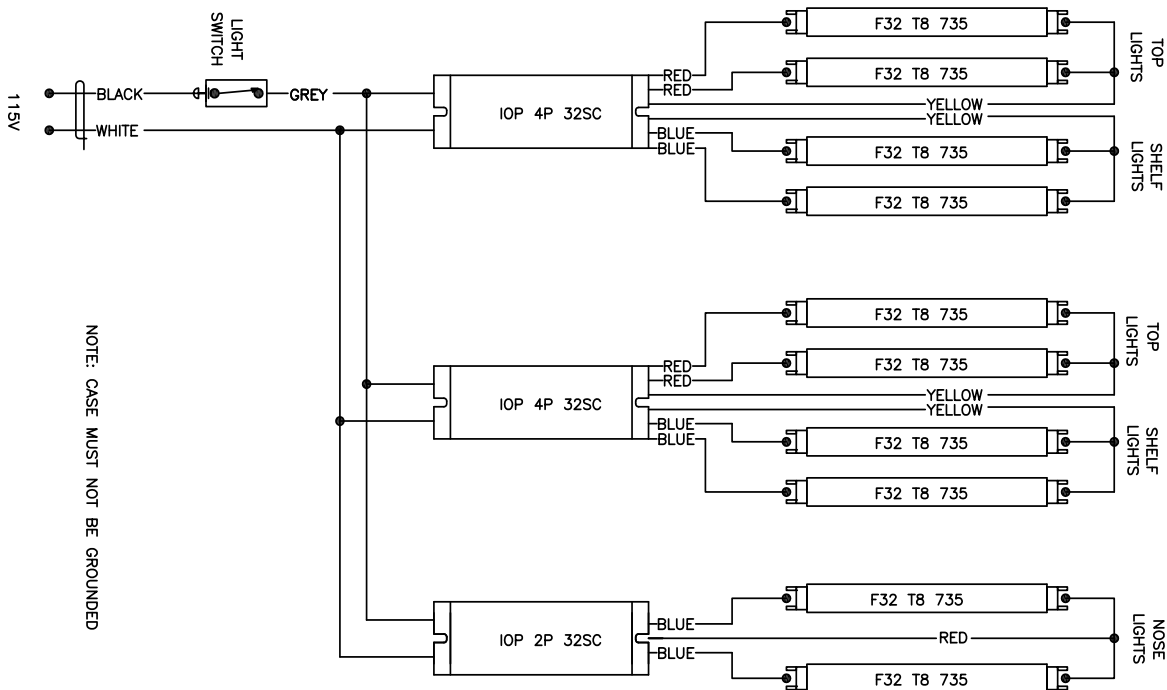


NOTE: CASE MUST NOT BE GROUNDED

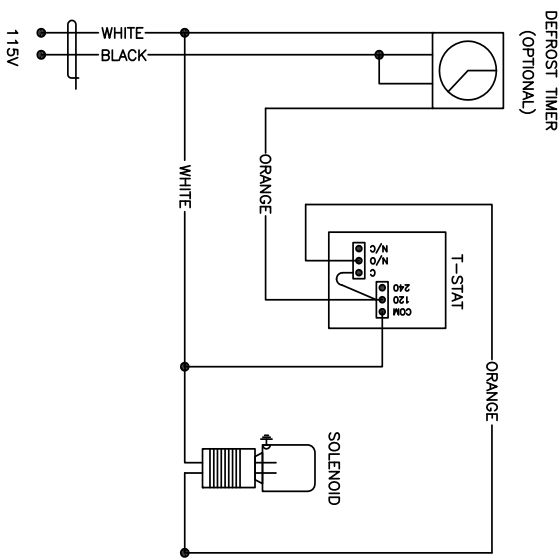
DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	CUSTOMER:	BMD-6 R	DRAFTER	APPROVED BY
DRAWING #							STANDARD WIRING DIAGRAM	SCALE	NONE

Bar-Ko P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.



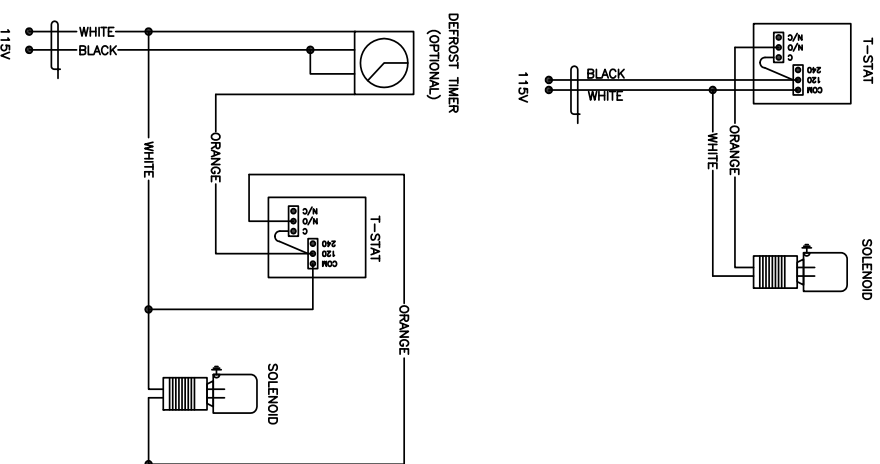
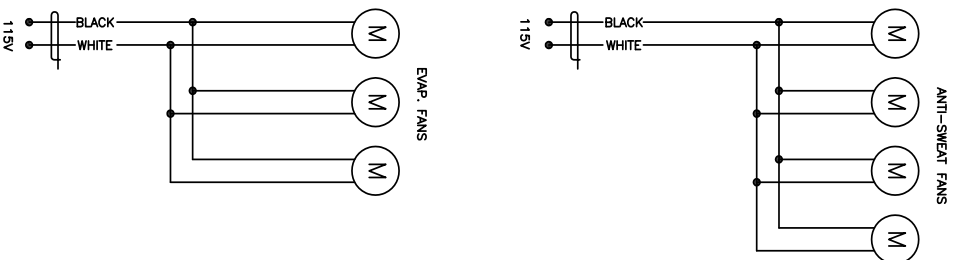
VOLT.	120-1-60
FANS	2.24
LIGHTS	2.45
BTU'S	650
EVAP. TEMP.	+20°




DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	CUSTOMER: BMD-8 R		DRAFTER	CP	APPROVED BY		
DRAWING #	STANDARD WIRING DIAGRAM										SCALE	NONE

Barker
KEDSAQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

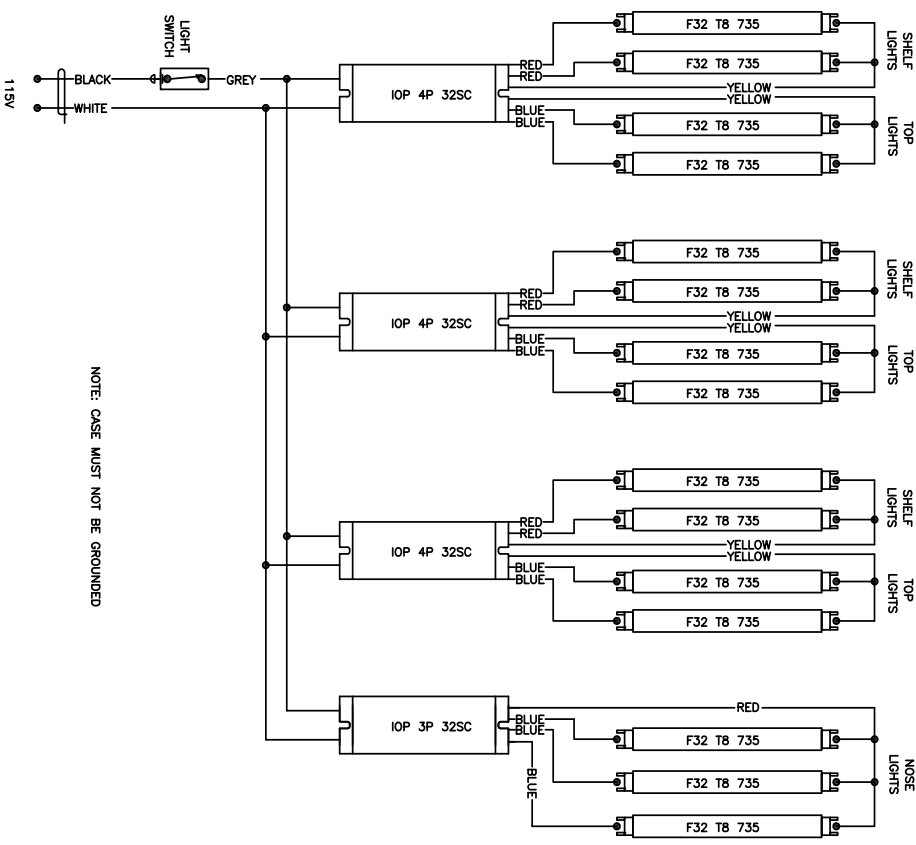
VOLT.	120-208 1-60
FANS	2.5
LIGHTS	3.79
BTU'S	650
EVAP. TEMP.	+20°



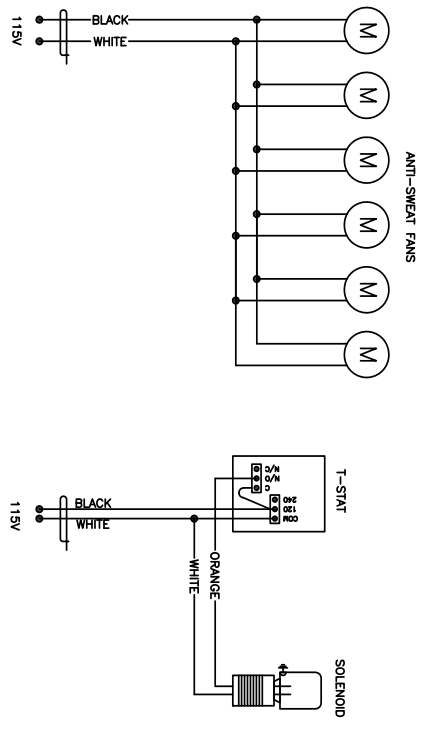
NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	—	 P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-3777 FAX: (319)293-3776	CUSTOMER: BMD-10 R STANDARD WIRING DIAGRAM	DRAFTER	APPROVED BY
DRAWING #	-----	PROJECT #	ORDER #				

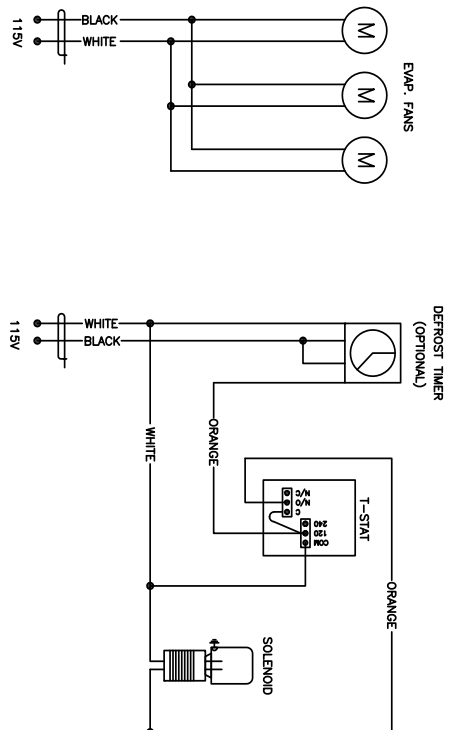
NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.




NOTE: CASE MUST NOT BE GROUNDED



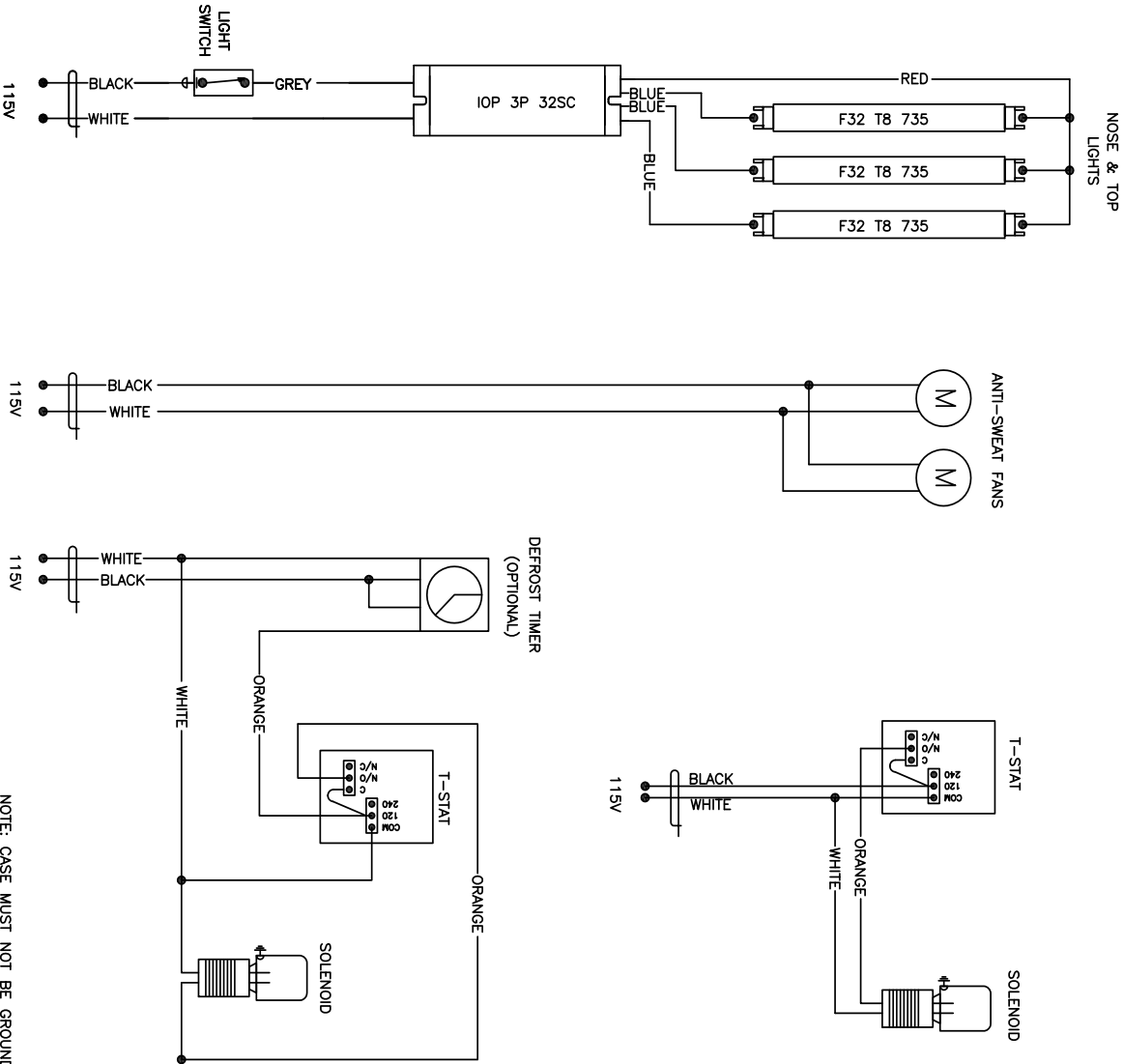
VOLT.	120-208 1-60
FANS	3.36
LIGHTS	3.79
BTU'S	650
EVAP. TEMP.	+20°



DATE:	09/07/06	REVISION	---	PROJECT #			P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMD-12 R	DRAFTER		APPROVED BY
DRAWING #		ORDER #					STANDARD WIRING DIAGRAM	SCALE	NONE			

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
FANS	.52
LIGHTS	.76
BTU'S	425
EVAP. TEMP.	+15°

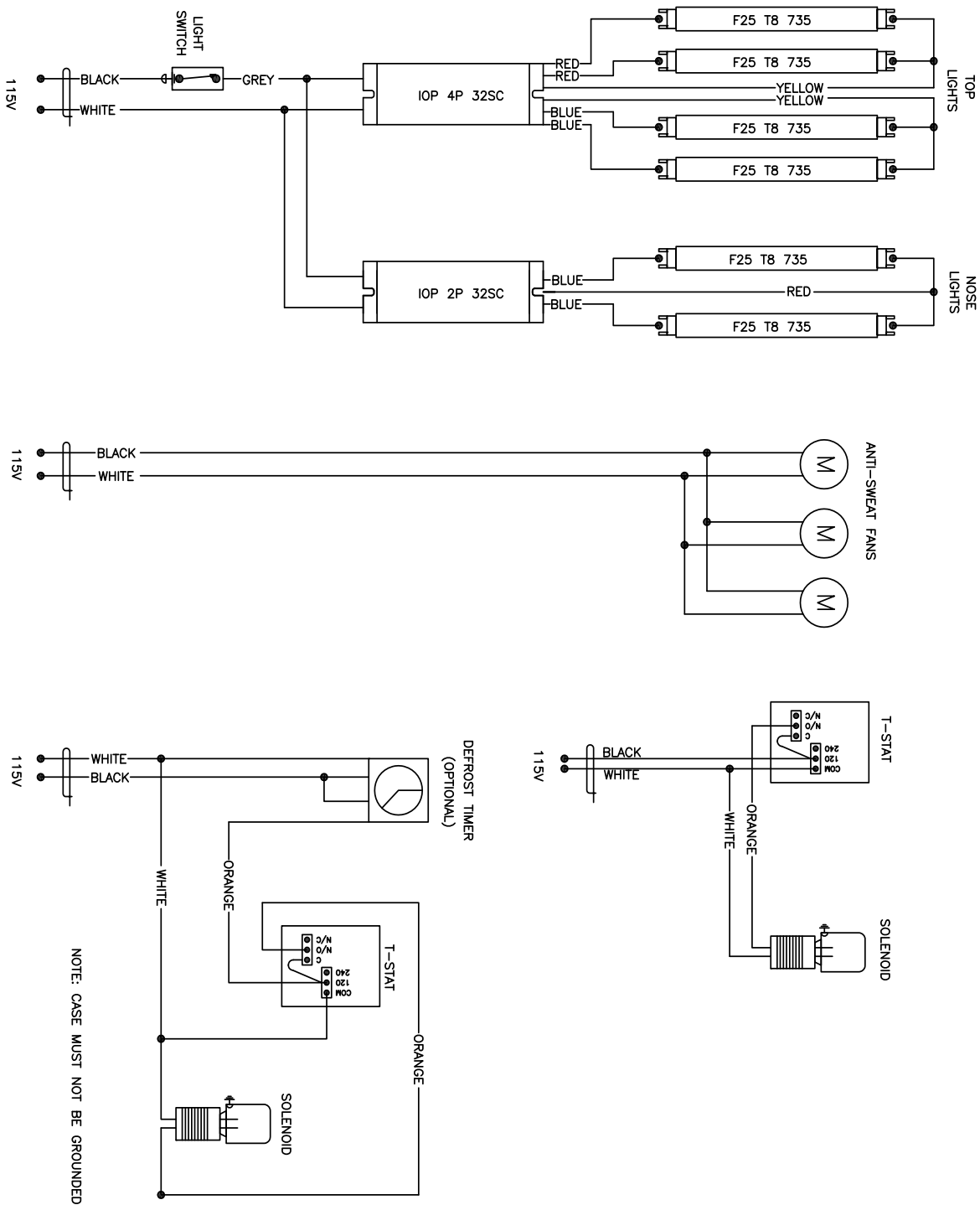


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	—	PROJECT #	ORDER #	Barkley KEDSAQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMDG-4 R	DRAFTER	APPROVED BY
DRAWING #								STANDARD WIRING DIAGRAM	SCALE NONE	

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT	120-1-60
FANS	.58
LIGHTS	.95
BTU'S	425
EVAP. TEMP.	+15°



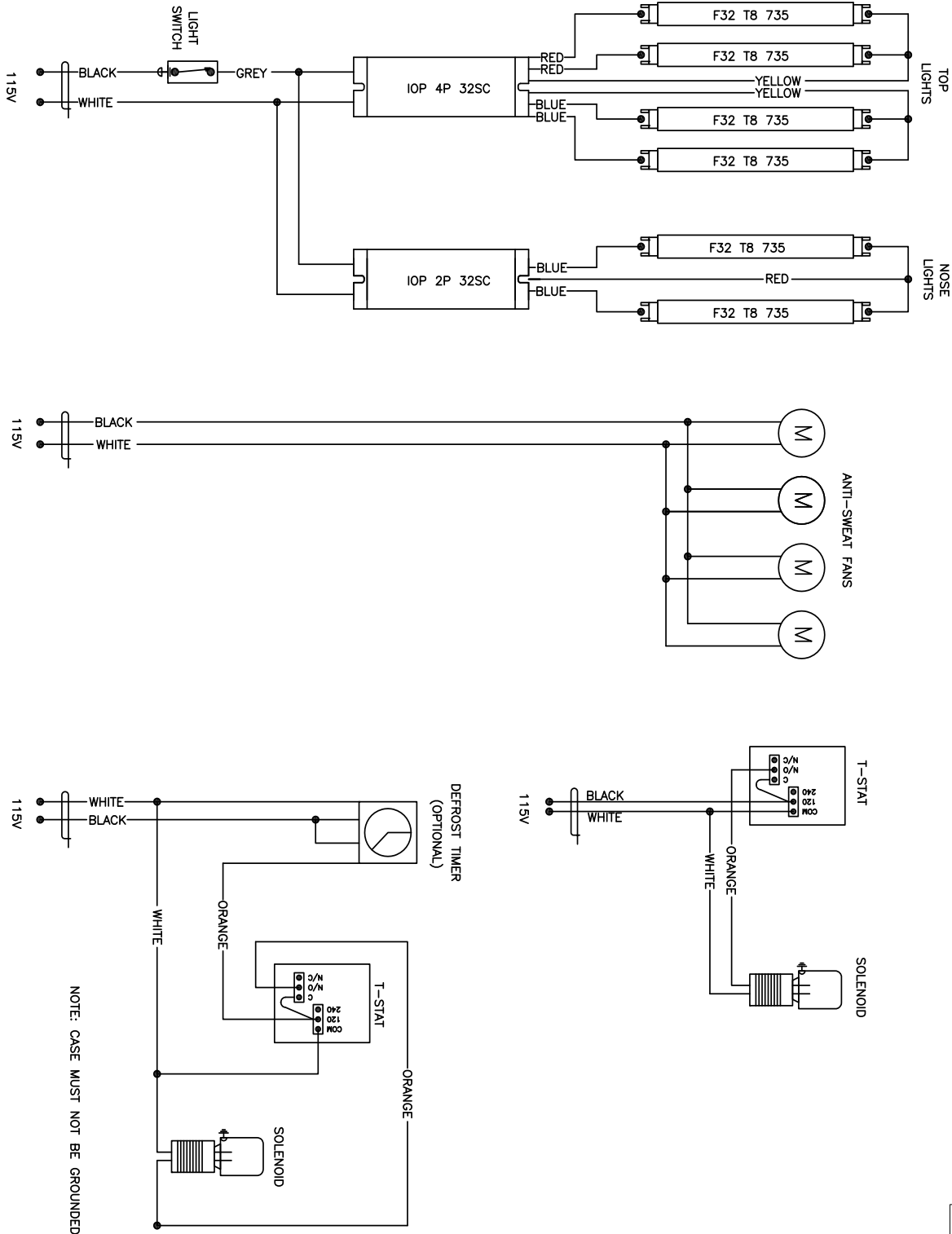
NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	CUSTOMER: BMDG-6 R		DRAFTER	APPROVED BY
DRAWING #						STANDARD WIRING DIAGRAM		SCALE NONE	

Borker
P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

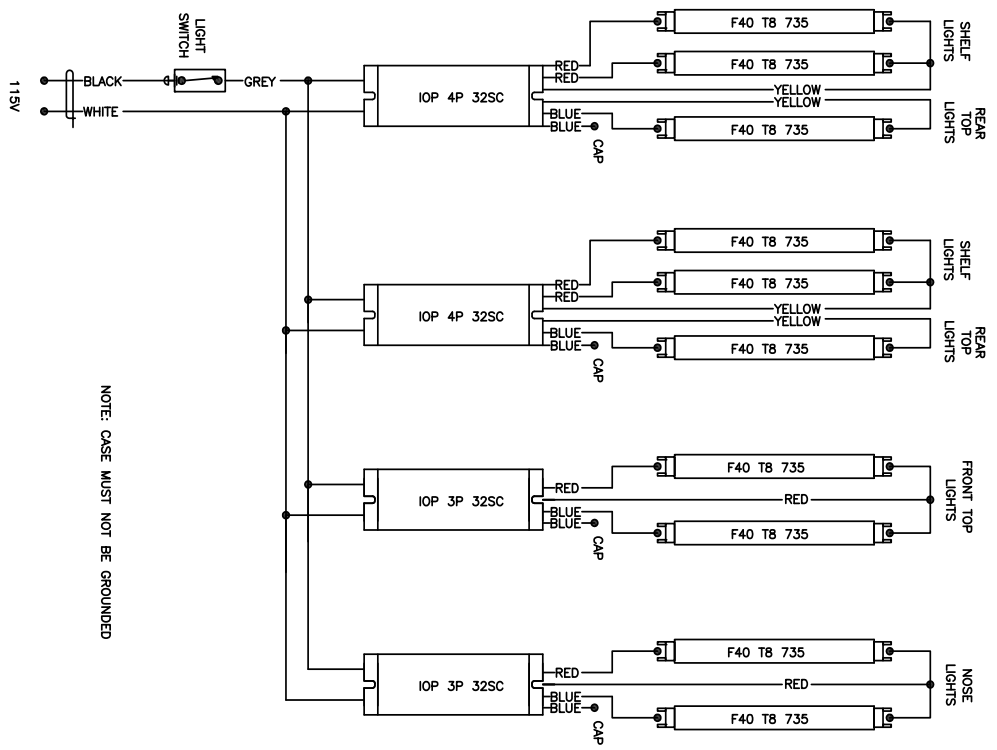
VOLT	120-1-60
FANS	1.04
LIGHTS	.95
BTU'S	425
EVAP. TEMP.	+15°



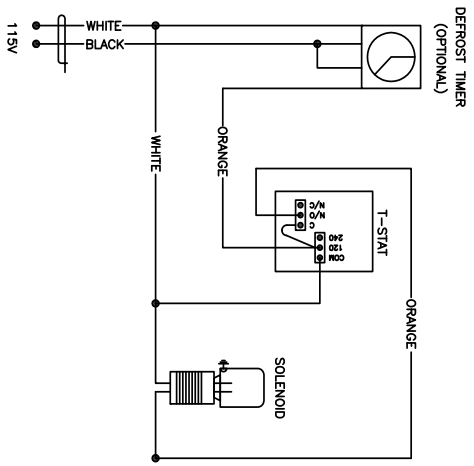
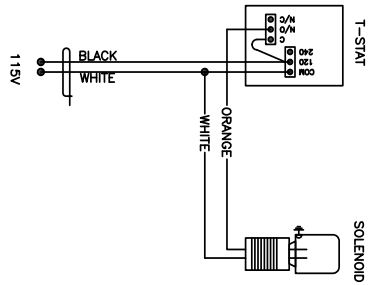
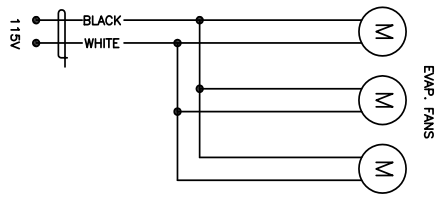
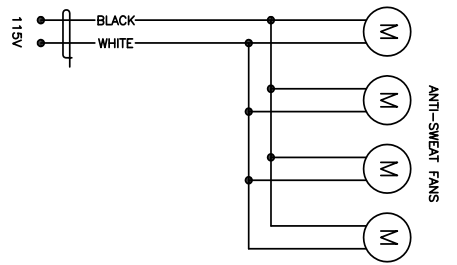
DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	CUSTOMER:	BMDG-8 R	DRAFTER	SCALE	APPROVED BY
DRAWING #							STANDARD WIRING DIAGRAM		NONE	

Barkley
P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.



NOTE: CASE MUST NOT BE GROUNDED



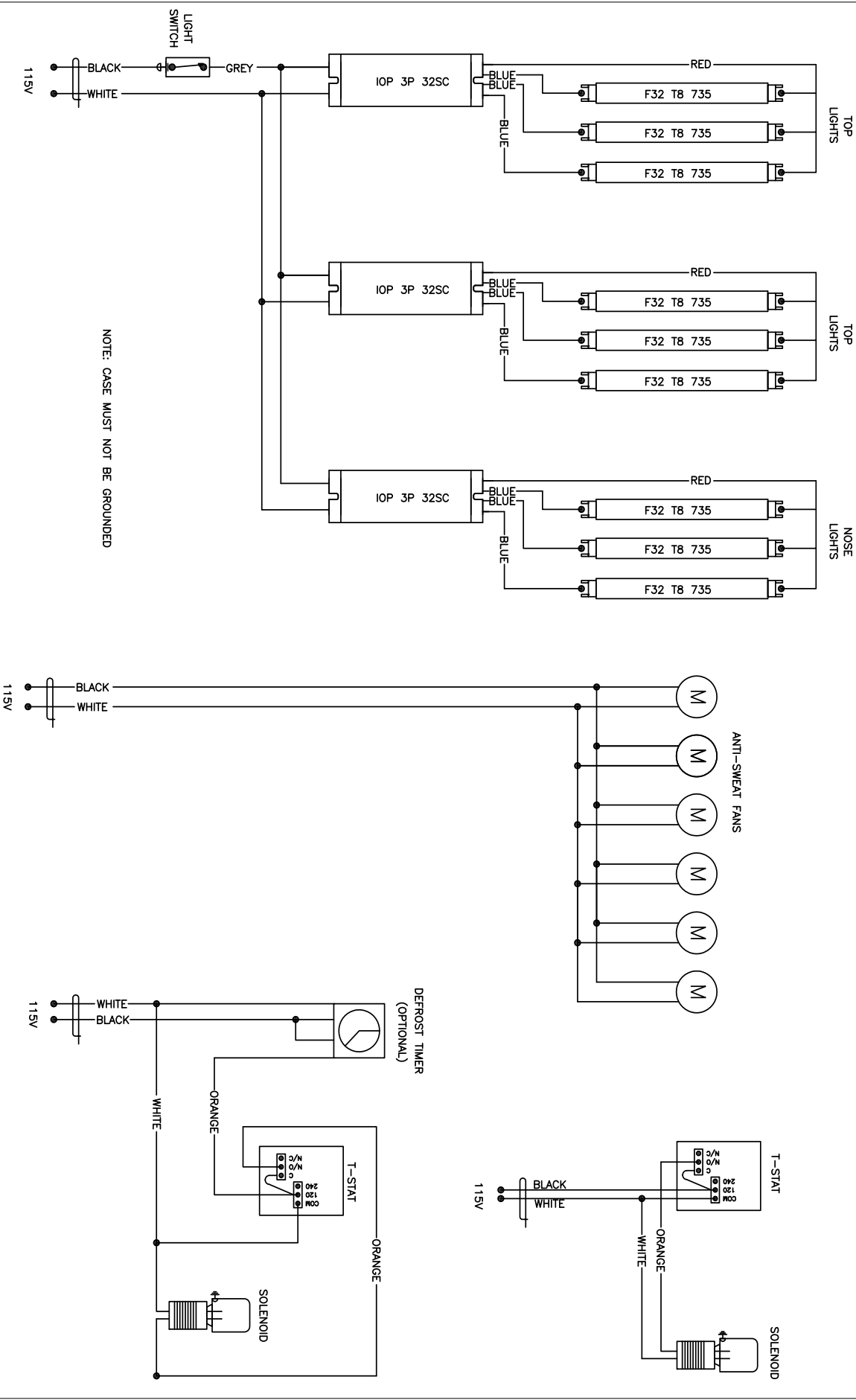
VOLT.	120-208
FANS	2.5
LIGHTS	3.79
BTU'S	650
EVAP. TEMP.	+20°

DATE:	09/07/06	REVISION	---	PROJECT #		CUSTOMER:	BMD-10 R	DRAFTER		APPROVED BY	
DRAWING #		ORDER #					STANDARD WIRING DIAGRAM	SCALE	NONE		



P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

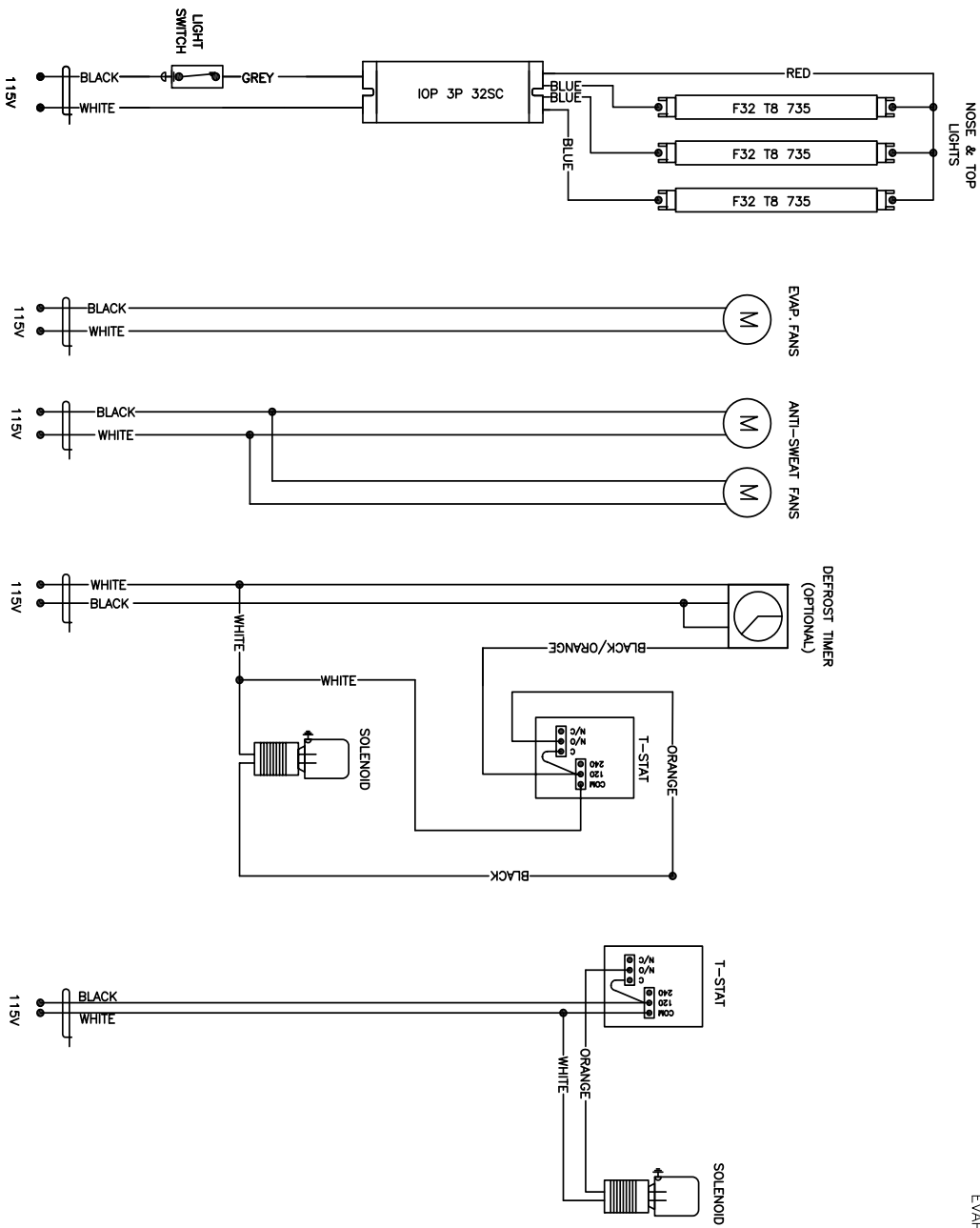


VOLT.	120-1-60
FANS	1.56
LIGHTS	1.54
BTU'S	425
EVAP. TEMP.	+15°

DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	Barker	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMDG-12 R	DRAFTER	SCALE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM	NONE		

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT	120-1-60
FANS	1.52
LIGHTS	.76
BTU'S	450
EVAP. TEMP.	+20°

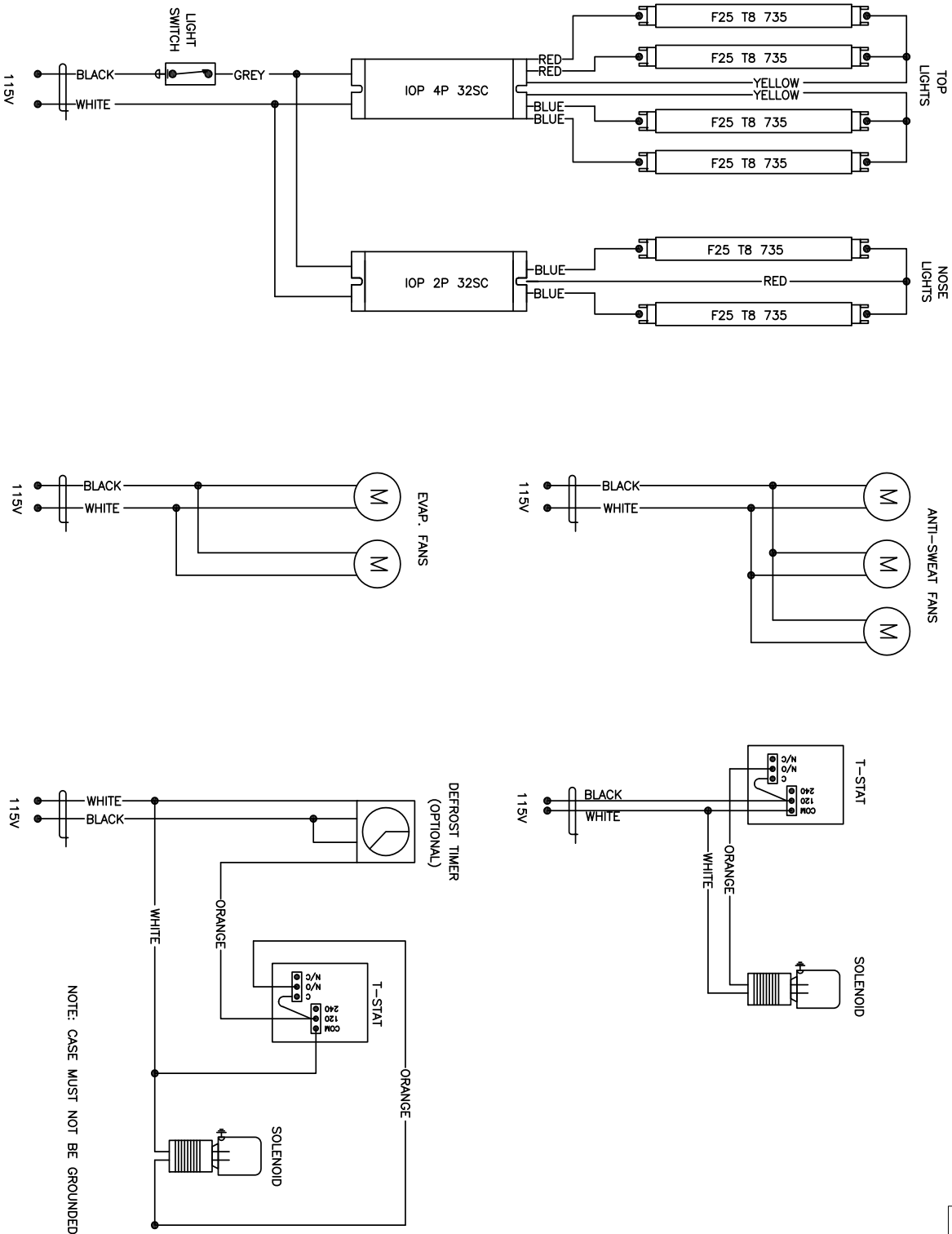


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	—	PROJECT #	ORDER #	CUSTOMER:	BSD-4 R	DRAFTER	APPROVED BY
DRAWING #	---						STANDARD WIRING DIAGRAM	SCALE	NONE
<div><div><div>P.O. BOX 478</div><div>KEOSAUQUA, IA 52565</div><div>PHONE: (319)293-5777</div><div>FAX: (319)293-5776</div></div></div>									

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
FANS	2.0
LIGHTS	.95
BTU'S	450
EVAP. TEMP.	+20°

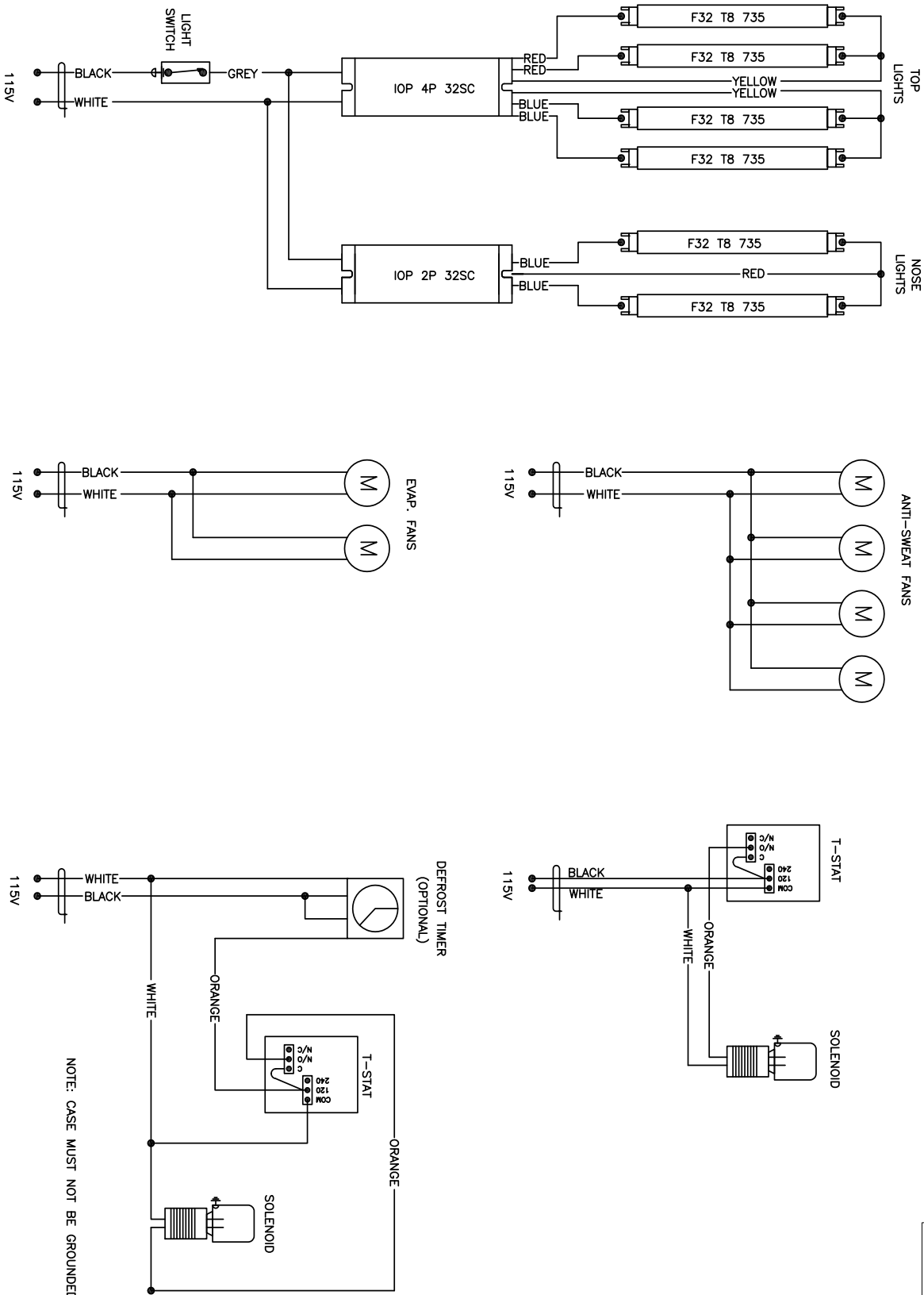


DATE:	09/07/06	REVISION	PROJECT #	CUSTOMER:	BSD-6 R	DRAFTER	APPROVED BY
DRAWING #			ORDER #	STANDARD WIRING DIAGRAM			SCALE NONE

Bartlett
P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
FANS	2.24
LIGHTS	.95
BTU'S	450
EVAP. TEMP.	+20°

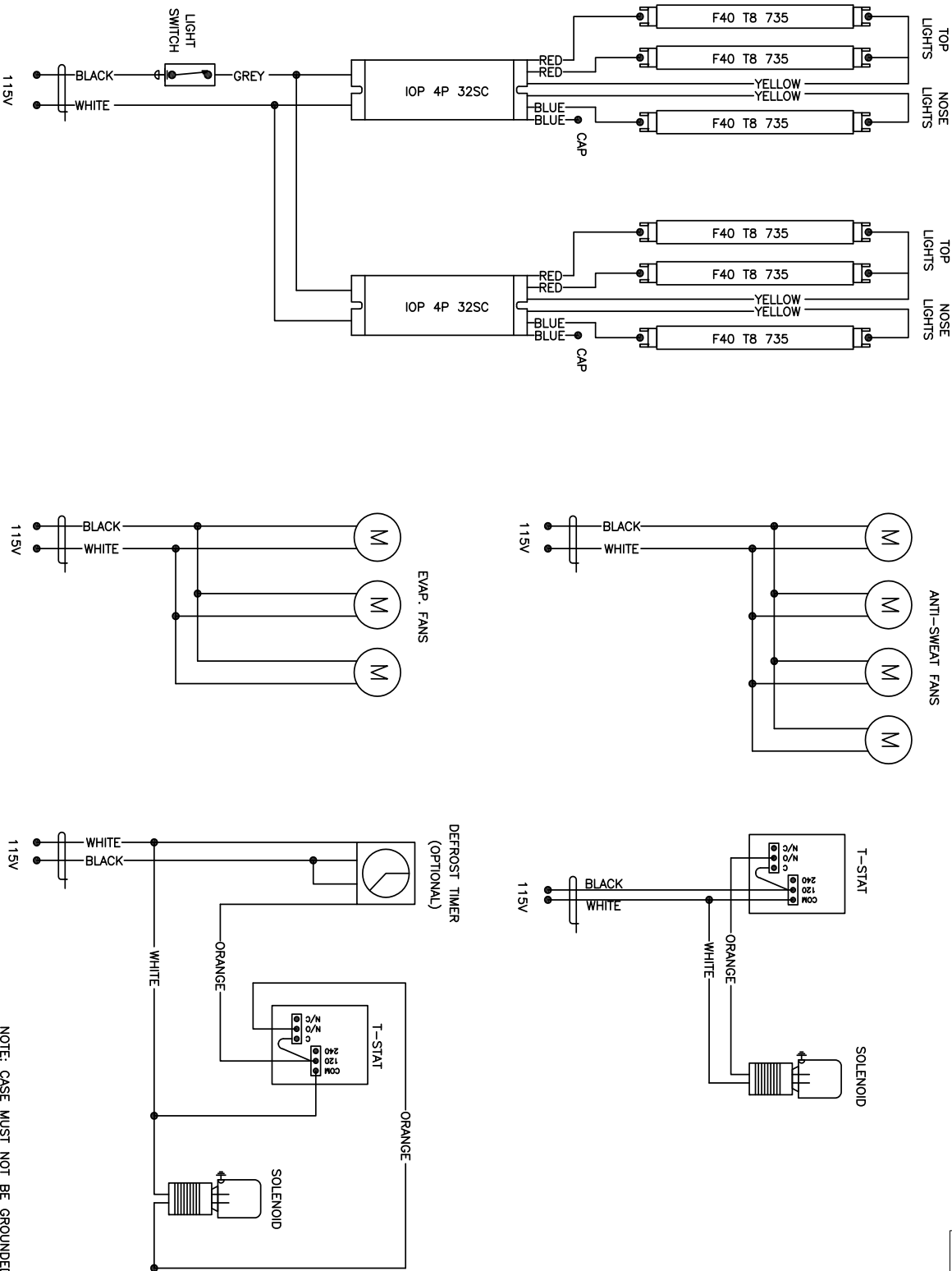


DATE:	09/07/06	REVISION	---	PROJECT #		CUSTOMER:	BSD-8 R	DRAFTER		APPROVED BY	
DRAWING #				ORDER #			STANDARD WIRING DIAGRAM	SCALE	NONE		

Berkley
P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

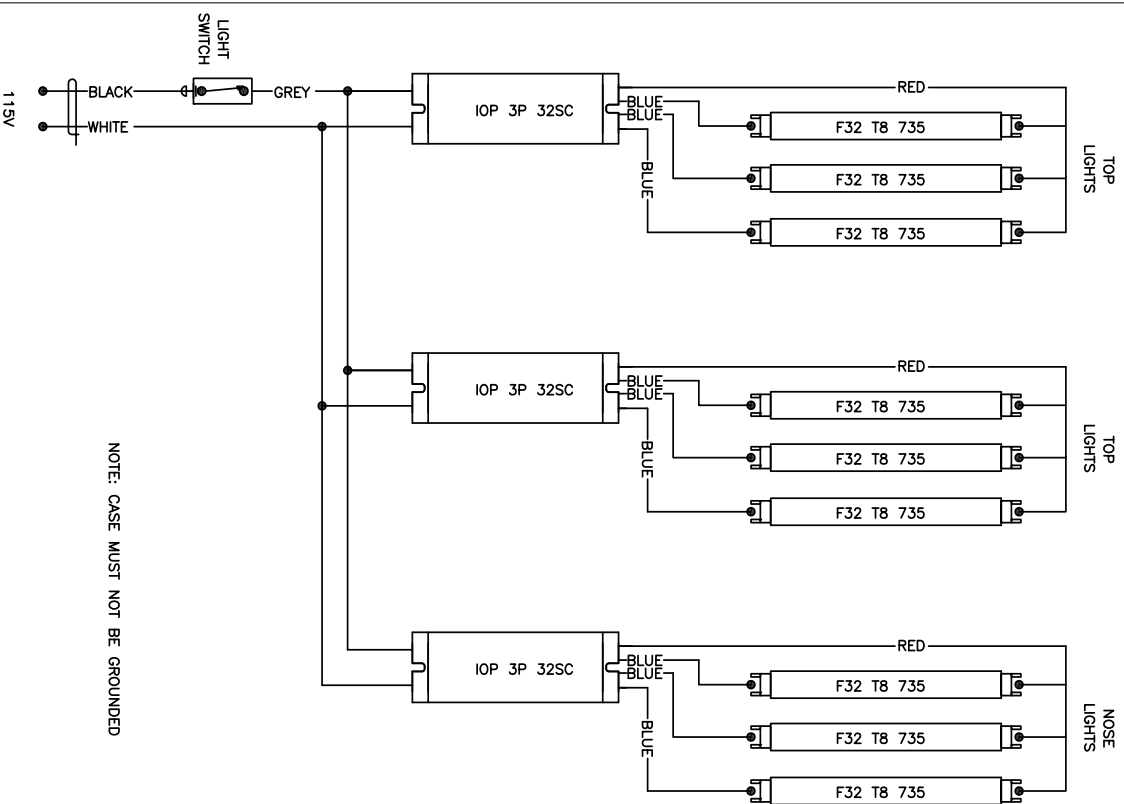
VOLT.	120-208 1-60
FANS	2.5
LIGHTS	1.54
BTU'S	450
EVAP. TEMP.	+20°



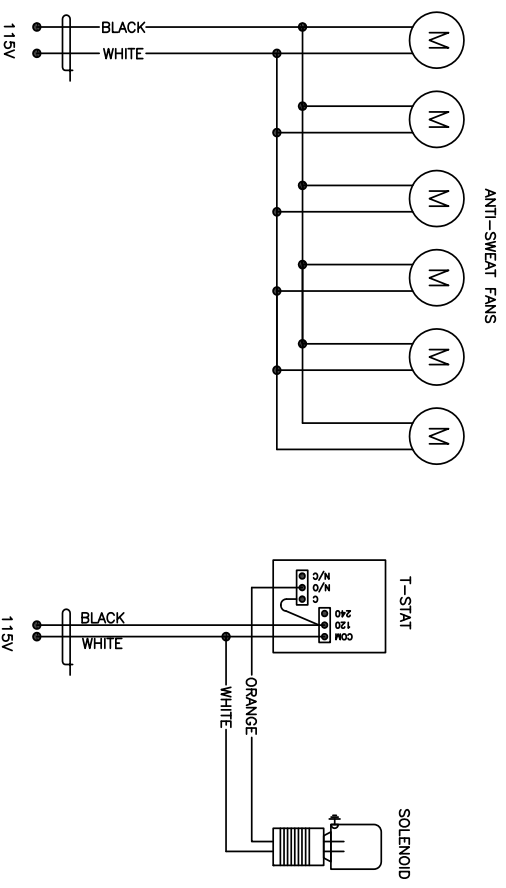
DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	CUSTOMER: BSD-10 R		DRAFTER	APPROVED BY
DRAWING #						STANDARD WIRING DIAGRAM		SCALE	NONE

P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

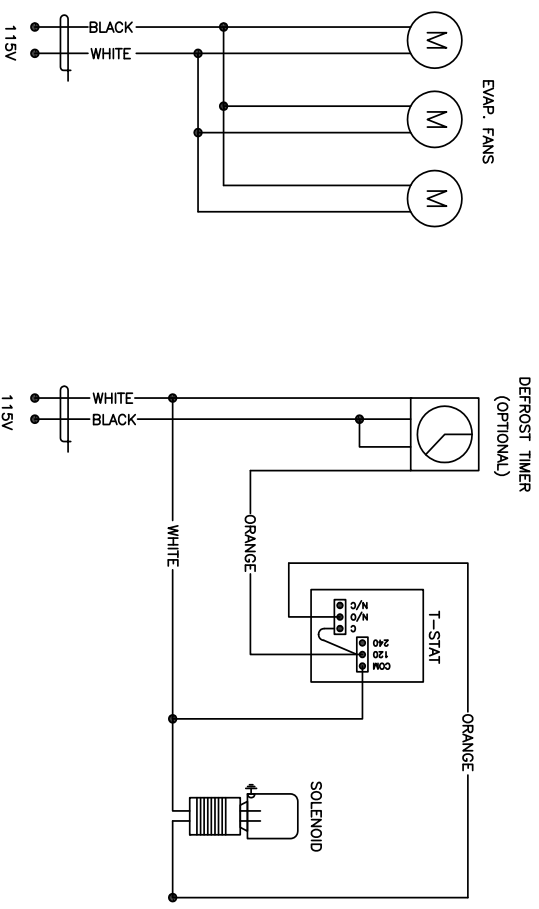
NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.



NOTE: CASE MUST NOT BE GROUNDED



VOLT.	120-208	1-60
FANS	3.36	
LIGHTS	1.54	
BTU'S	450	
EVAP. TEMP.	+20°	



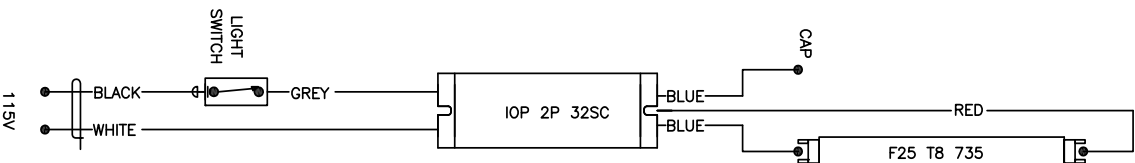
DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	CUSTOMER:	BSD-12 R	DRAFTER	SCALE	APPROVED BY
DRAWING #										



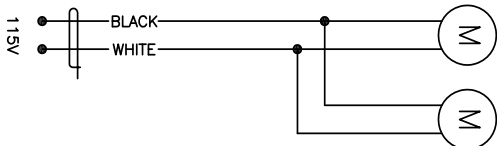
P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

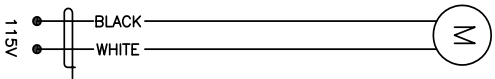
NOSE
LIGHTS



ANTI-SWEAT FANS

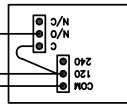


EVAP. FANS

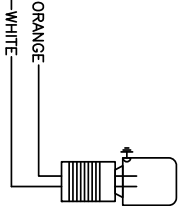


VOLT	120-1-60
FANS	1.12
LIGHTS	1.25
BTU'S	450
EVAP. TEMP.	+20°

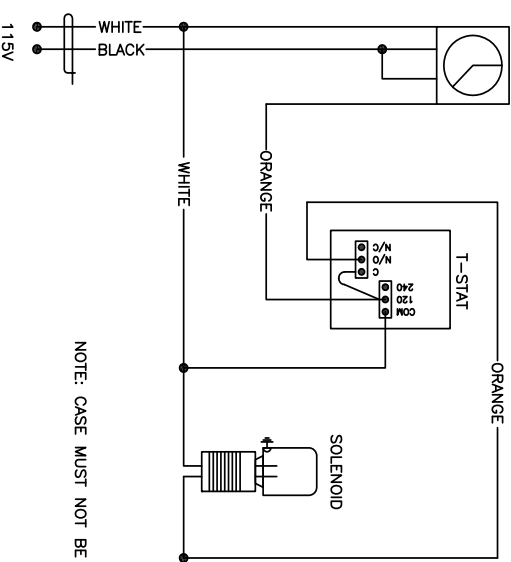
T-STAT



SOLENOID



DEFROST TIMER
(OPTIONAL)



NOTE: CASE MUST NOT BE GROUNDED

DATE: 09/07/06

REVISION

PROJECT #

DRAWING #

ORDER #



P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

CUSTOMER:

BSDT-4 R

STANDARD WIRING DIAGRAM

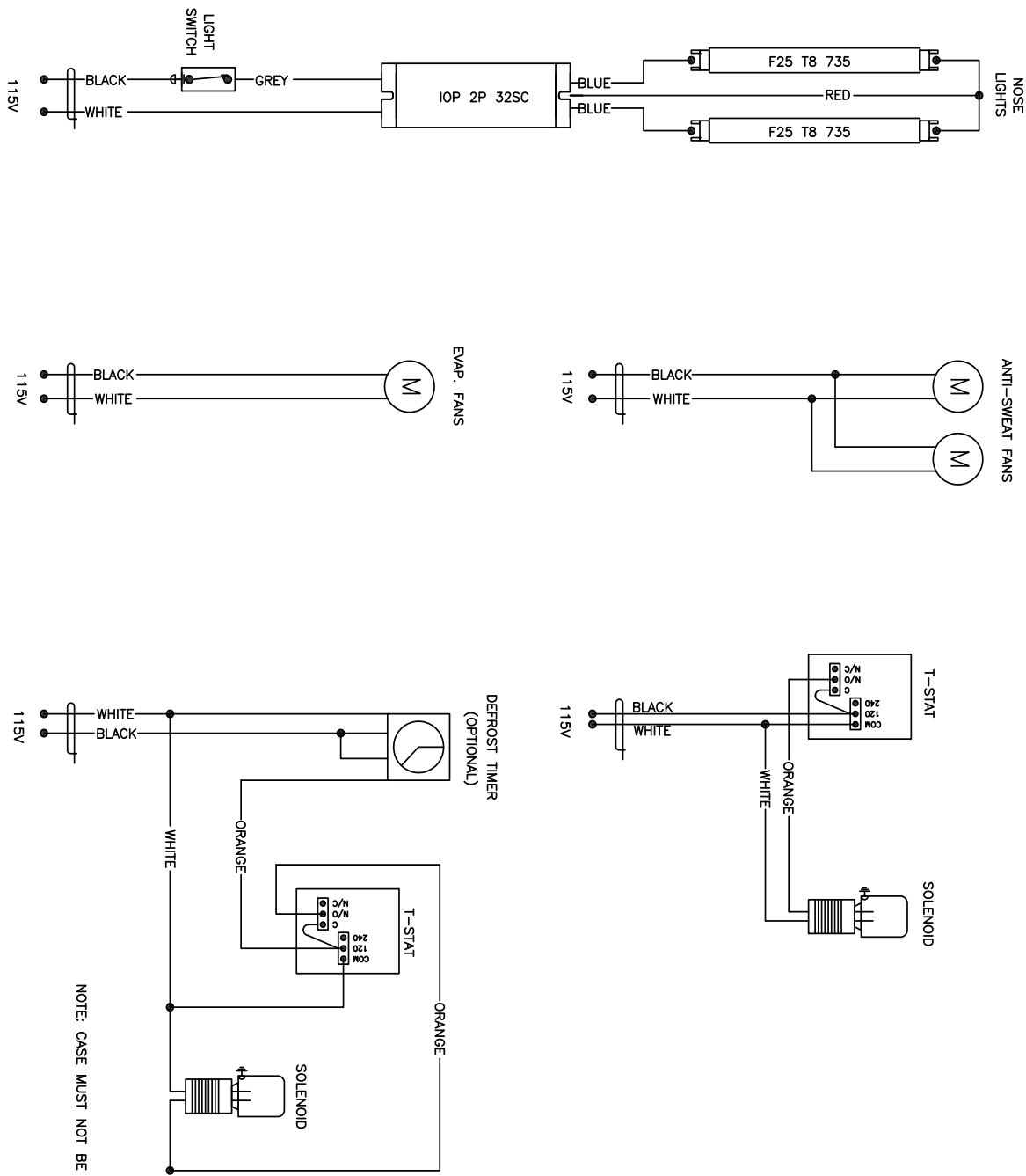
DRAFTER

SCALE
NONE

APPROVED BY

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
FANS	1.12
LIGHT'S	.52
BTU'S	450
EVAP. TEMP.	+20°

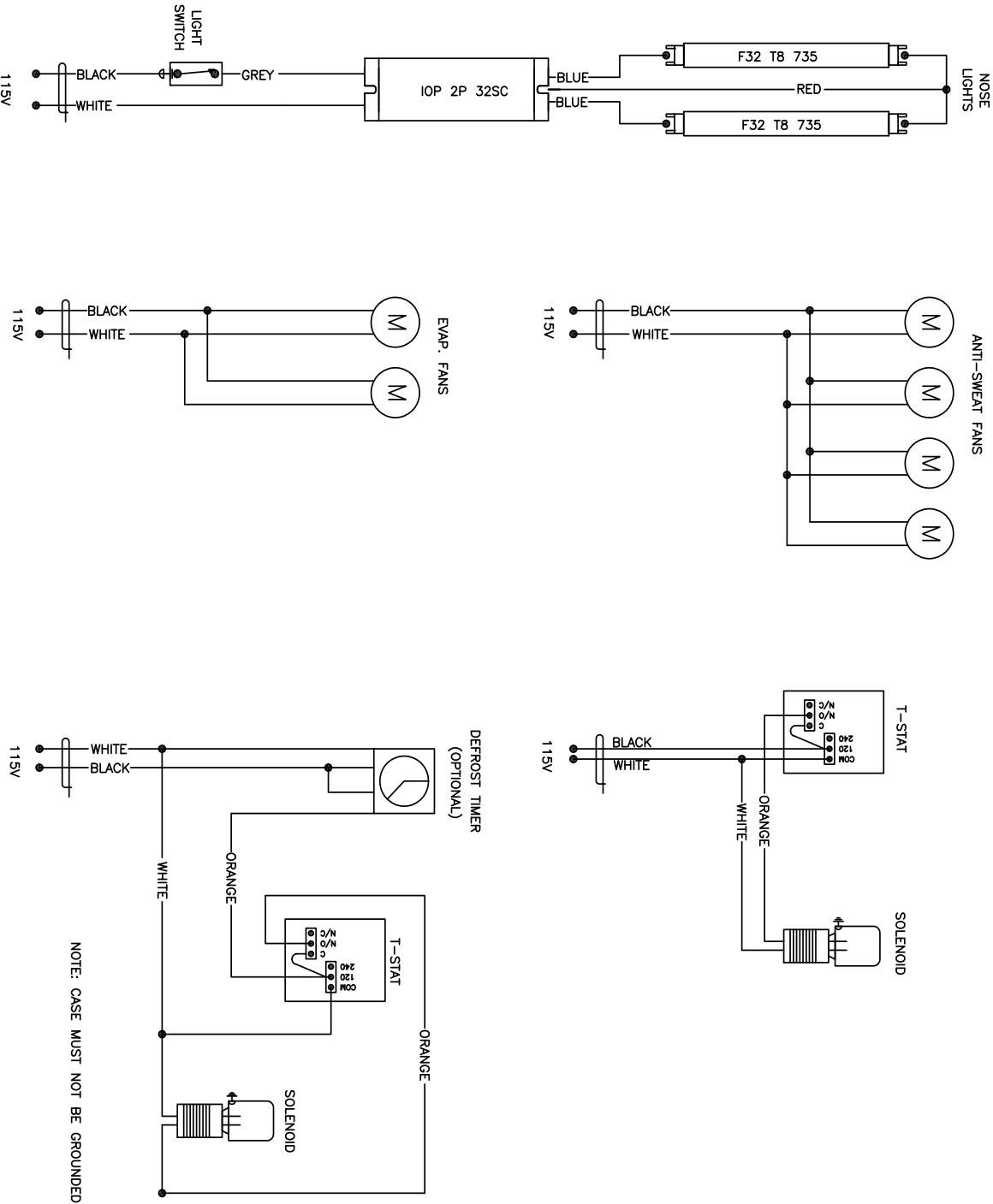


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	---	PROJECT #		 P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BSDT-6 R	DRAFTER	CP	APPROVED BY
DRAWING #		ORDER #					STANDARD WIRING DIAGRAM	SCALE	NONE		

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

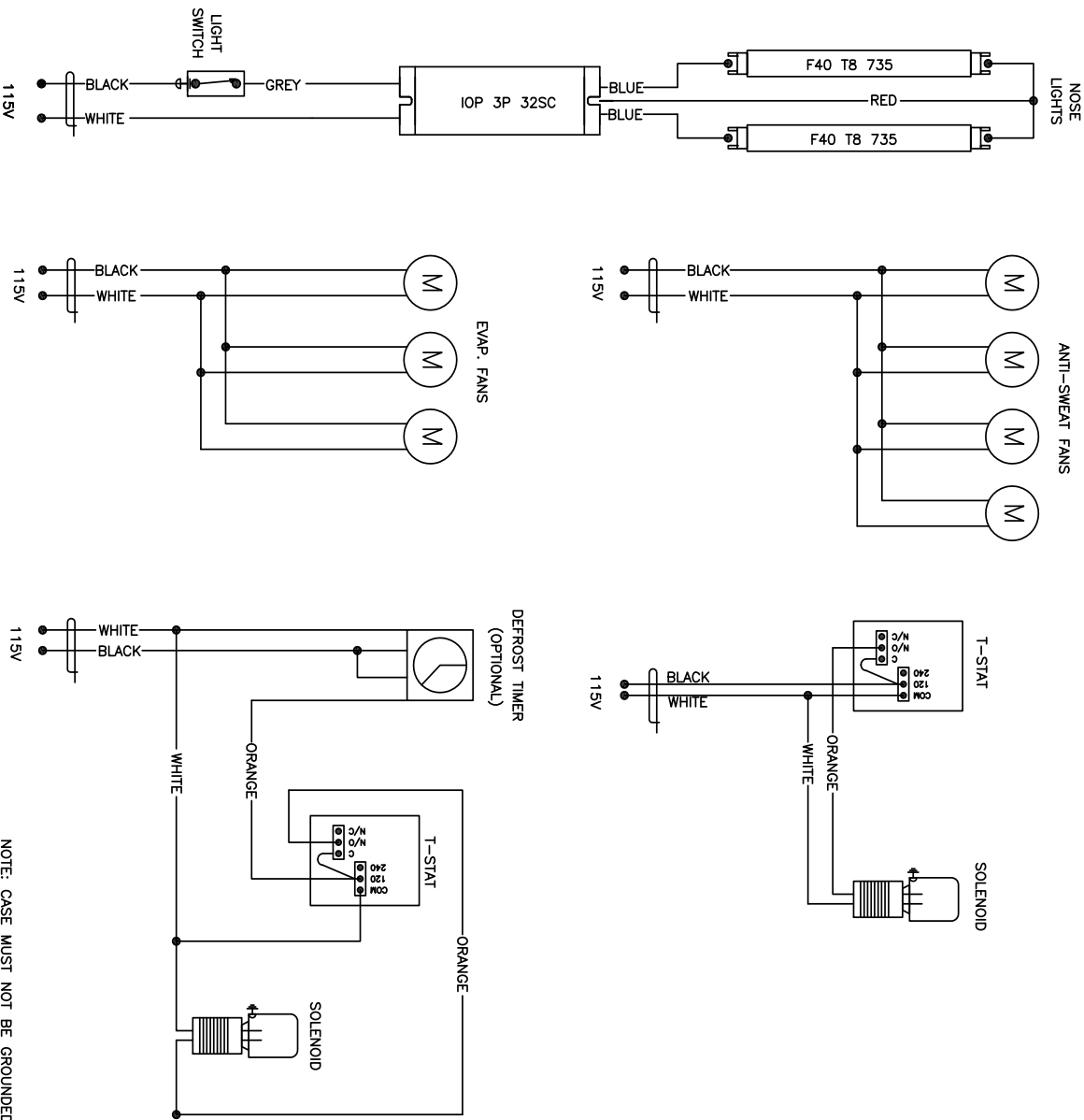
VOLT.	120-1-60
FANS	2.24
LIGHTS	.95
BTU'S	450
EVAP. TEMP.	+20°



DATE:	09/07/06	REVISION	---	PROJECT #	---	CUSTOMER:	BSDT-8 R	DRAFTER	---	APPROVED BY	---
DRAWING #	---	ORDER #	---	P.O. BOX 478 KEDSAQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776				STANDARD WIRING DIAGRAM			
Berket Co											

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-208	1-60
FANS	2.5	
LIGHTS	.5	
BTU'S	450	
EVAP. TEMP.	+20°	



DATE: 09/07/06

REVISION: -

PROJECT #

ORDER #

P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

CUSTOMER: BSDT-10 R

DRAFTER

APPROVED BY

DRAWING #

PROJECT #

ORDER #

P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

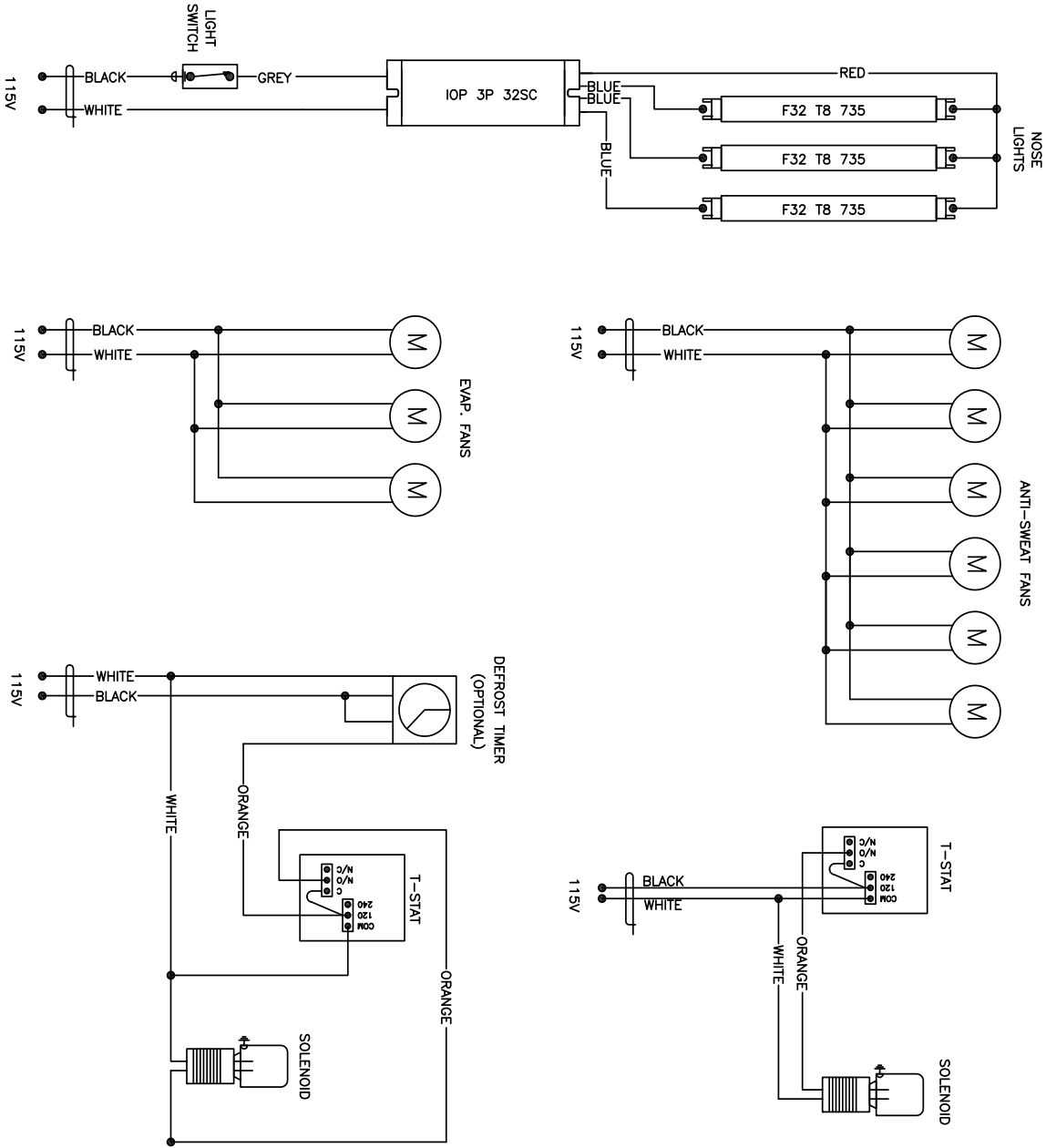
CUSTOMER: BSDT-10 R

DRAFTER

APPROVED BY

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-208 1-60
FANS	3.36
LIGHTS	0
BTU'S	450
EVAP. TEMP.	+20°

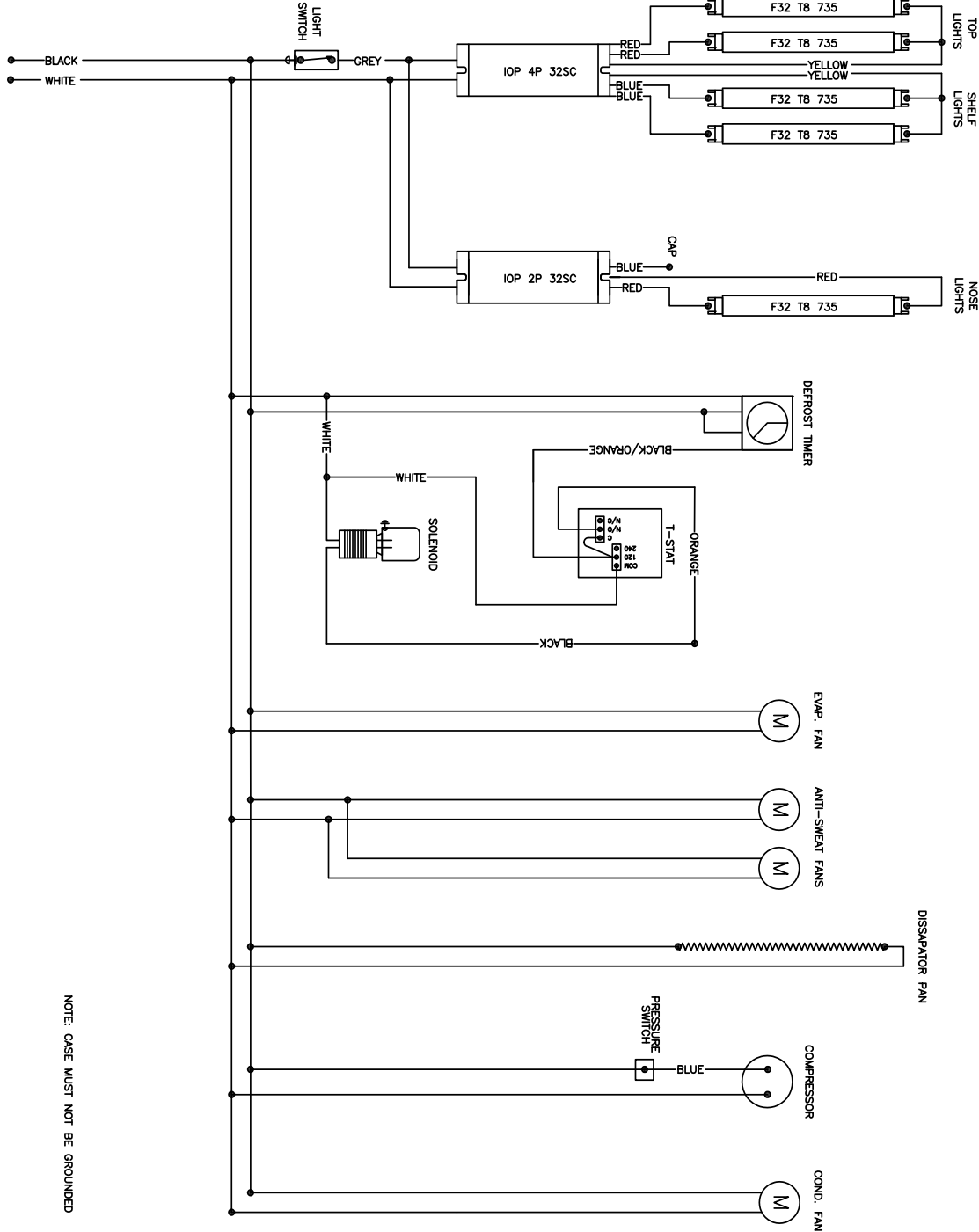


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	Barker	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BSDT-12 R	DRAFTER	SCALE	NONE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM				

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	15.32
BTU'S	650
EVAP. TEMP.	+20°

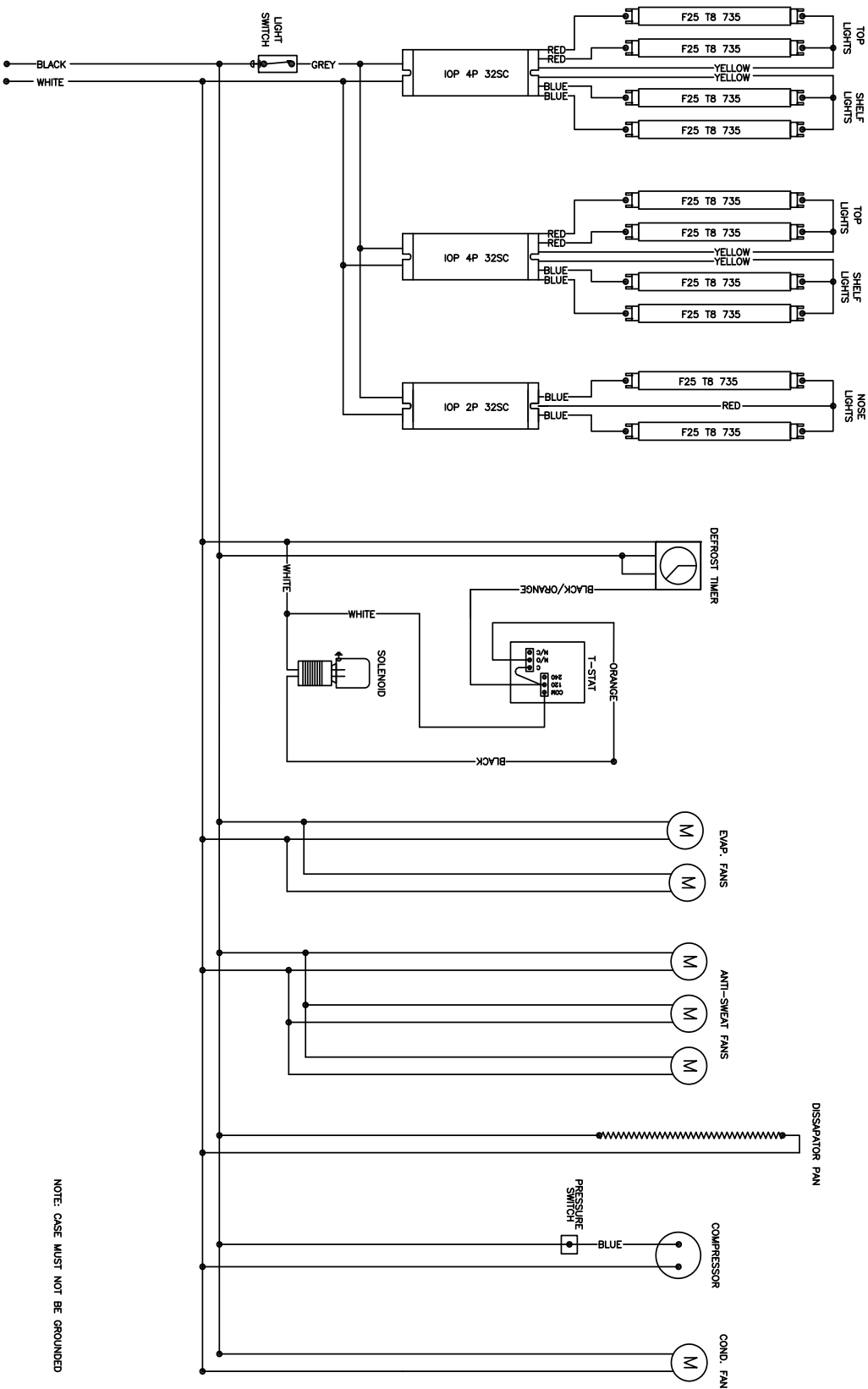


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	—	PROJECT #	ORDER #	Barker	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMD-4 SC	DRAFTER	APPROVED BY
DRAWING #								STANDARD WIRING DIAGRAM		SCALE	NONE

NOTE: SHELVES ARE OPTIONAL CASE. MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

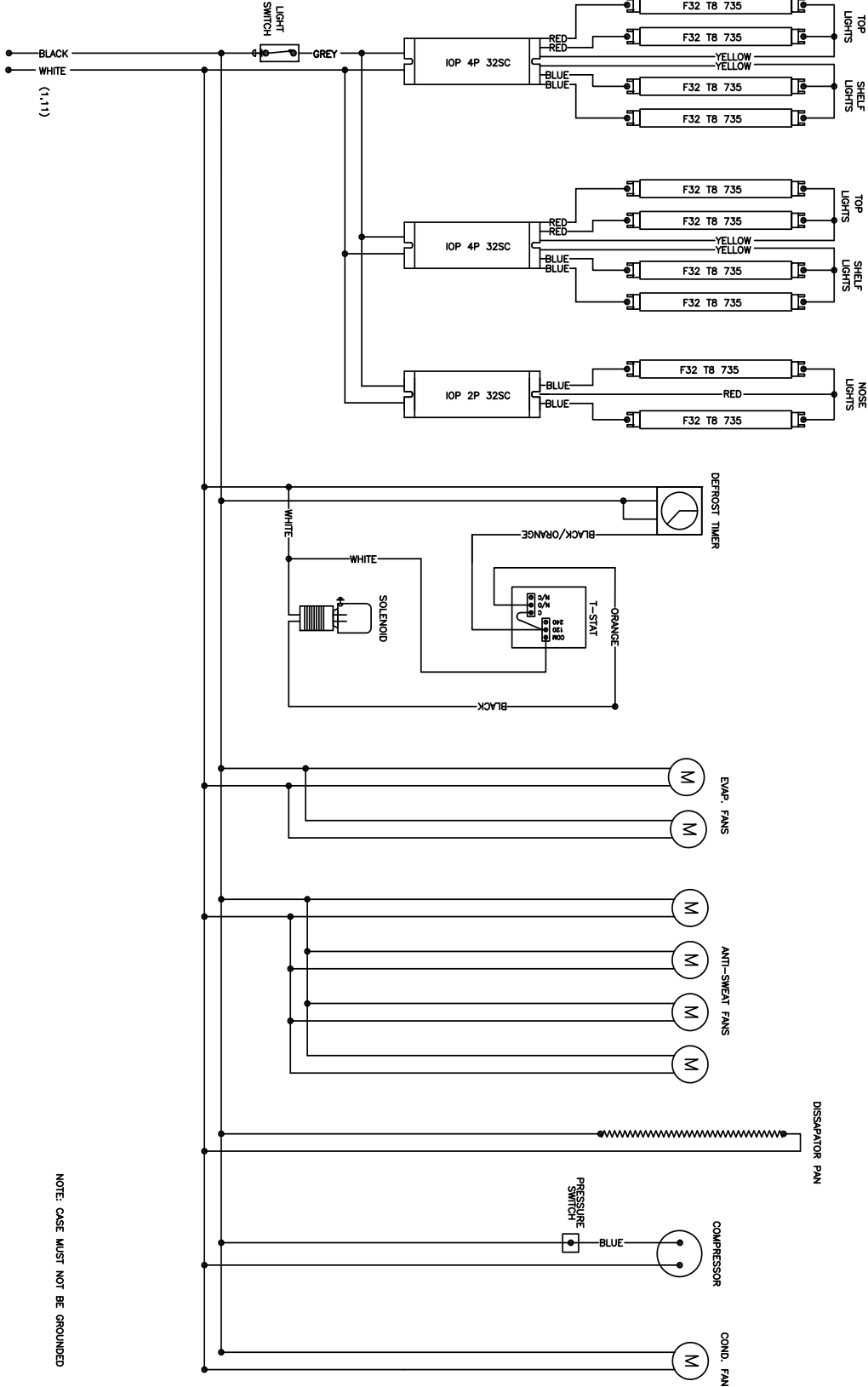
VOLT.	120-1-60
AMPS	25.88
BTU'S	650
EVAP. TEMP.	+20°



DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	Barker Co.	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMD-6 SC	DRAFTER	SCALE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM		NONE	

NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	28.03
BTU'S	650
E/A.P. TEMP.	+20°

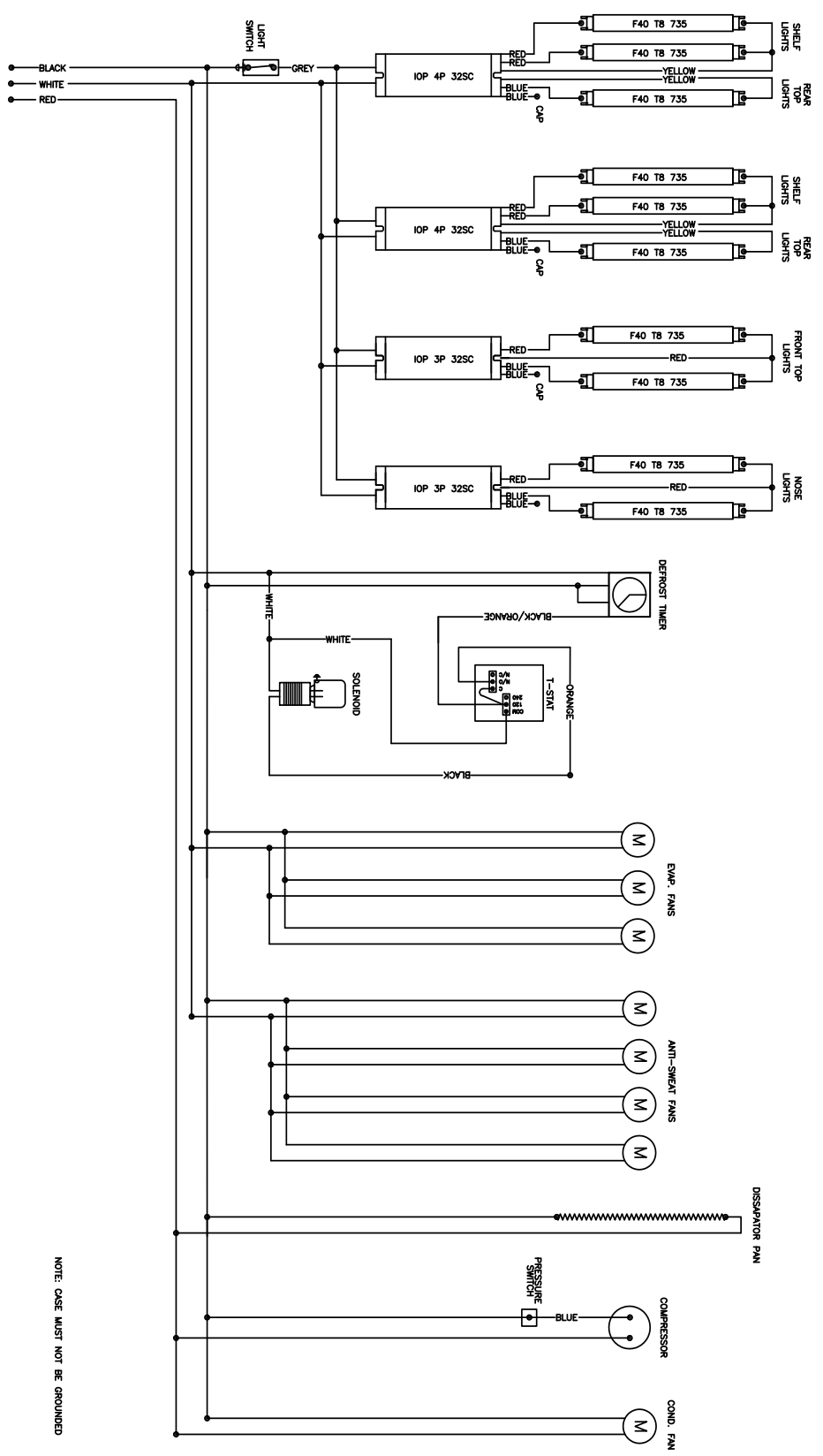


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	Burkert	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMD-8 SC	DRAFTER	SCALE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM		NONE	

VOLT.	120-208 1-60
AMPS	20.3
BTU'S	650
EVAP. TEMP.	+20°

NOTE: SHELVES ARE OPTIONAL, CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.



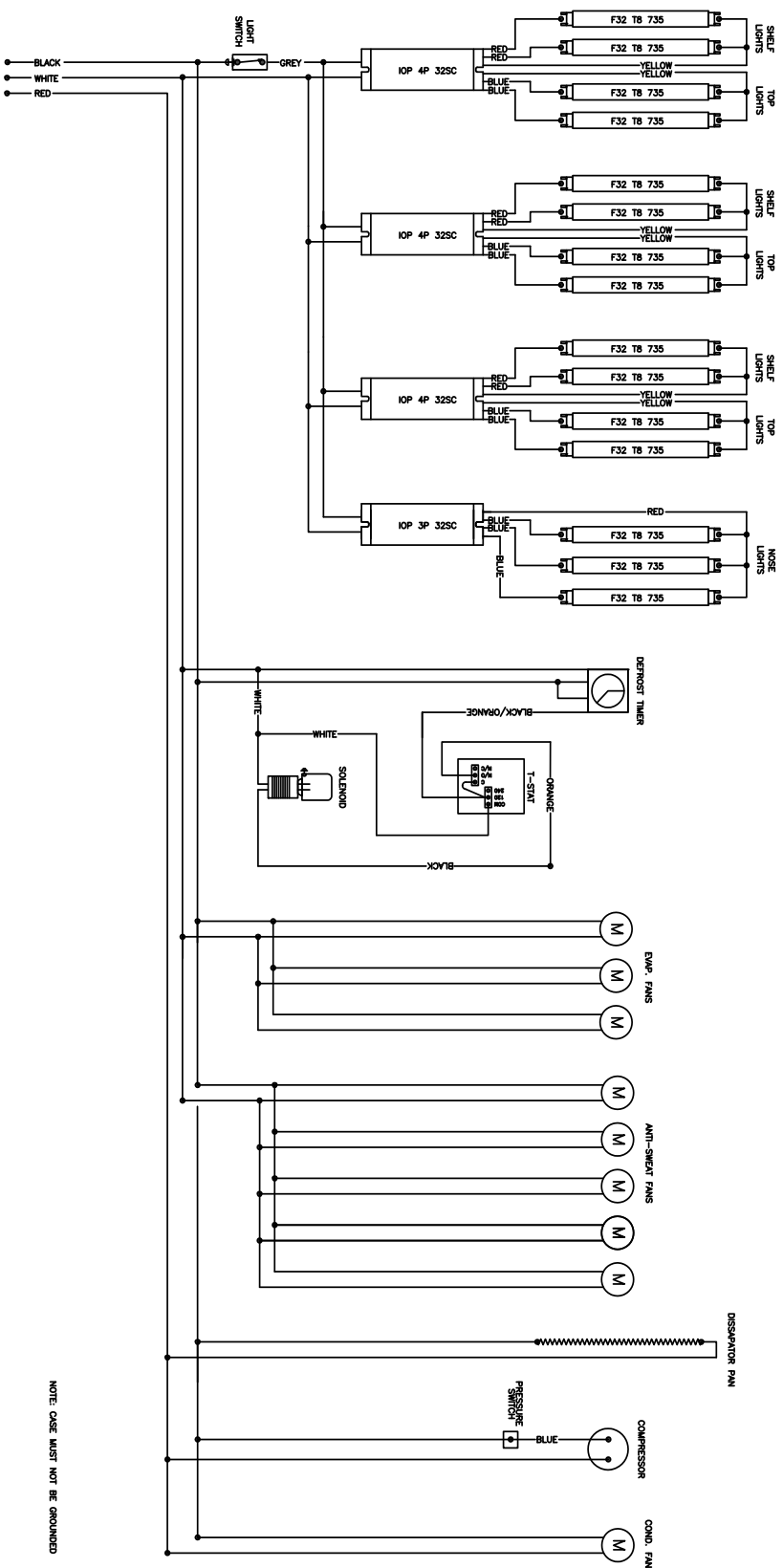
NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	—	PROJECT #	ORDER #	CUSTOMER:	BMD-10 SC	DRAFTER	APPROVED BY
DRAWING #							STANDARD WIRING DIAGRAM	SCALE	NONE

Barker
P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

VOLT.	120-208 1-60
AMPS	23.19
BTU'S	650
EVAP. TEMP.	+20°

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.



NOTE: CASE MUST NOT BE GROUND

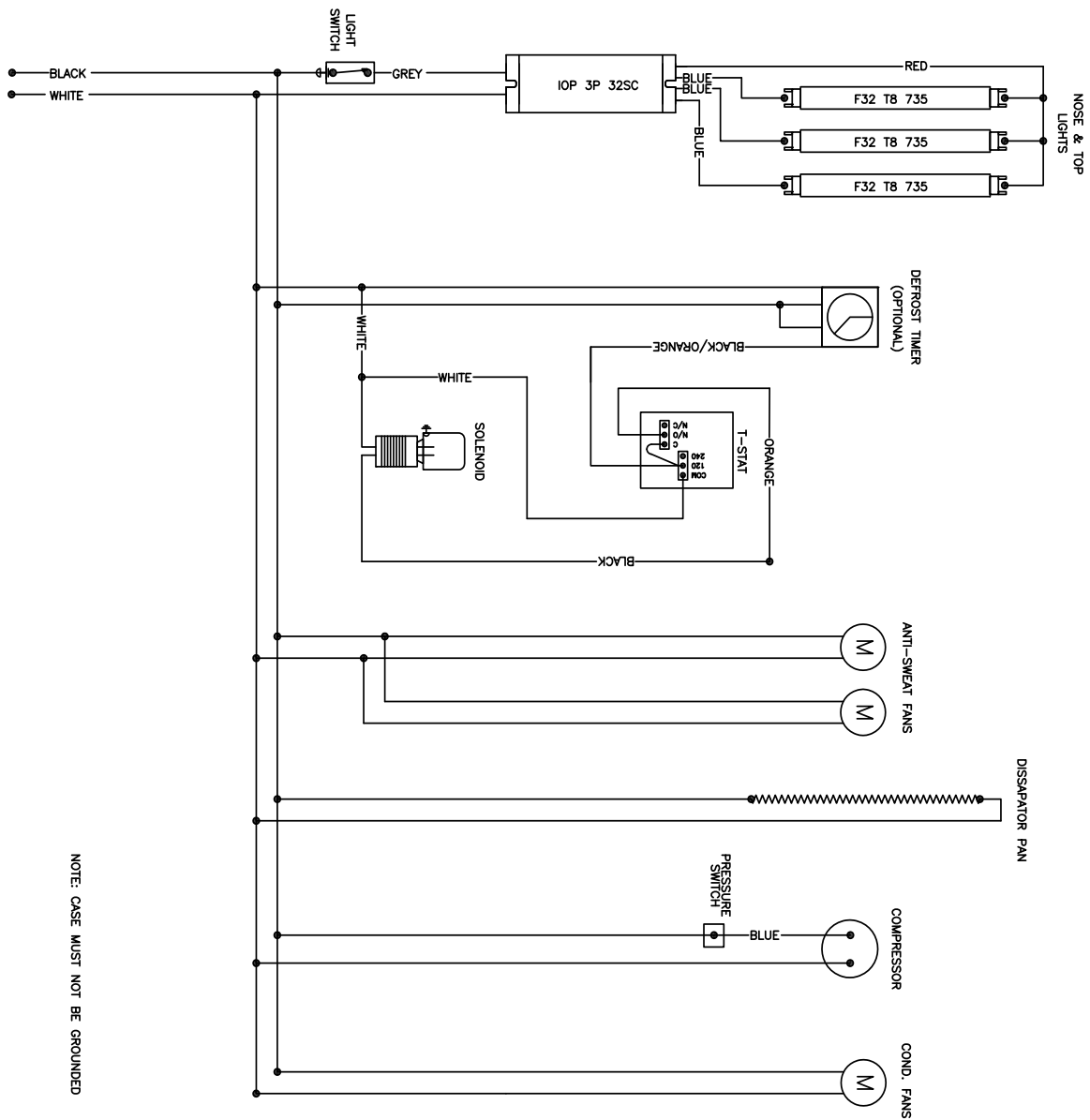
DATE:	09/07/06	REVISION	—	PROJECT #	ORDER #	CUSTOMER:	BMD-12 SC	DRAFTER	APPROVED BY
DRAWING #							STANDARD WIRING DIAGRAM	SCALE	NONE



P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	13.98
BTU'S	425
EVAP. TEMP.	+15°

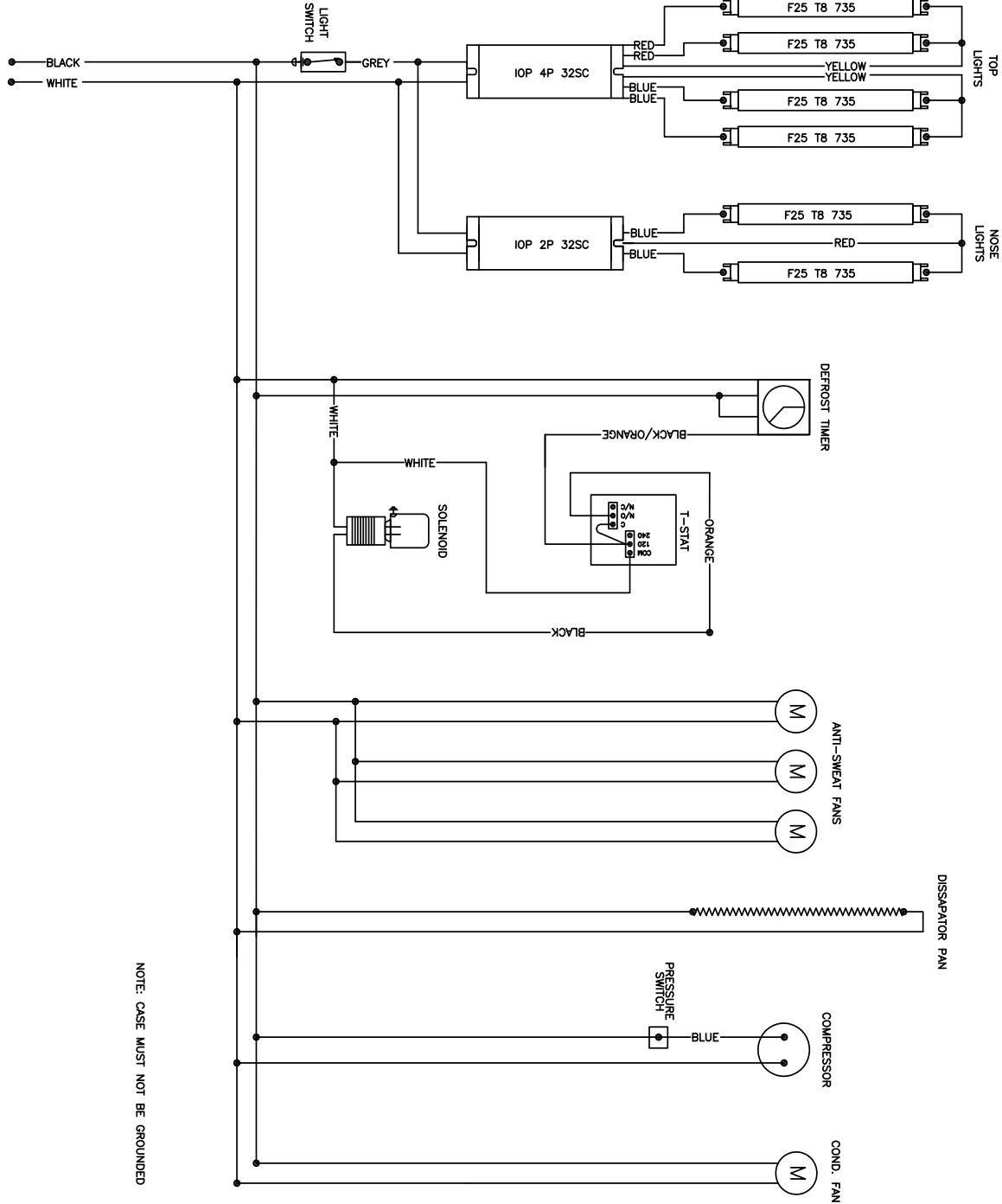


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	Barker Co	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMDG-4 SC	DRAFTER	SCALE	NONE	APPROVED BY
DRAWING #								STANDARD WIRING DIAGRAM					

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	13.03
BTU'S	425
EVAP. TEMP.	+15°

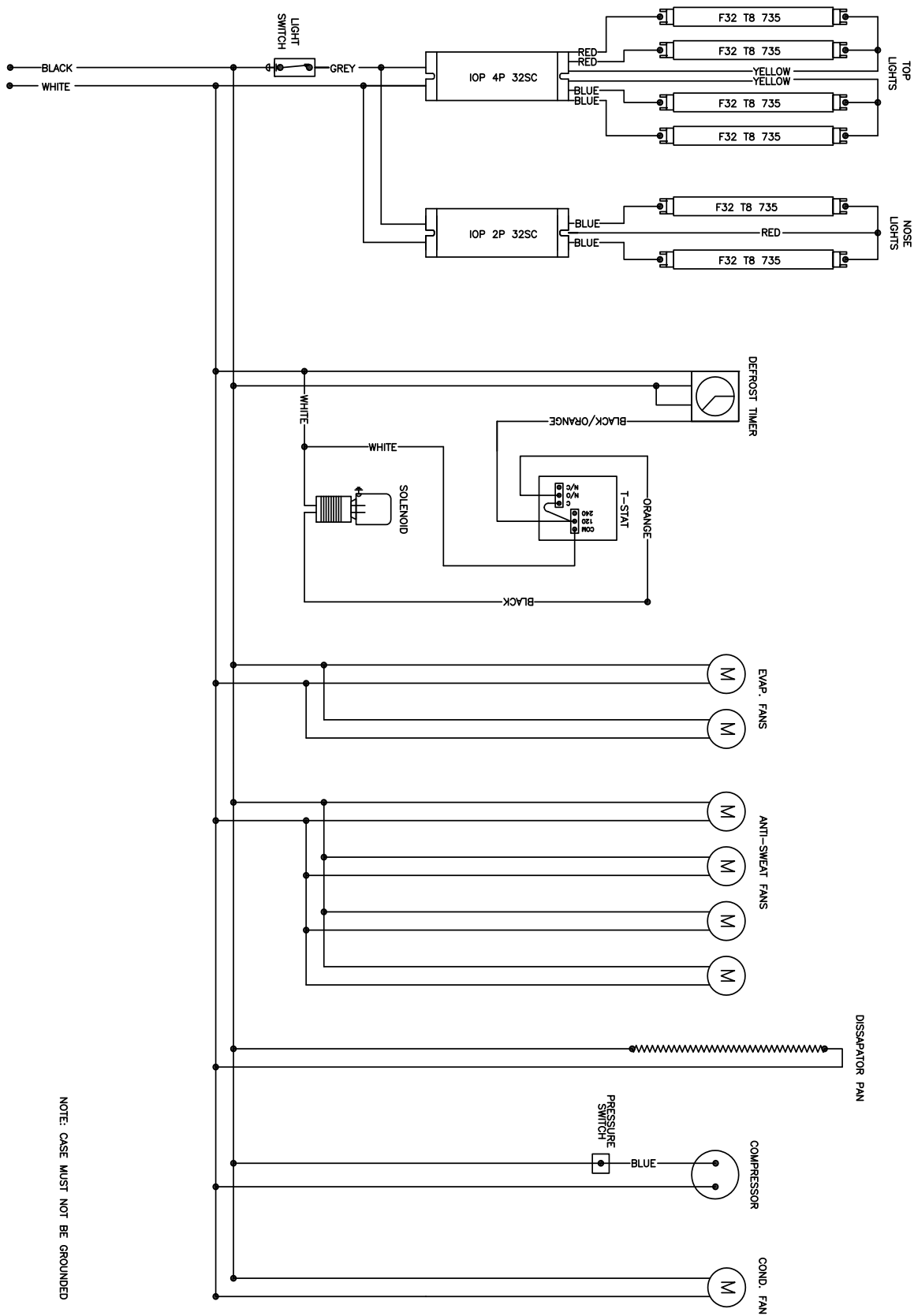


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	PROJECT #	ORDER #		P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMD-G 6 SC	DRAFTER	APPROVED BY
DRAWING #							STANDARD WIRING DIAGRAM		SCALE	NONE

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	21.84
BTU'S	450
EVAP. TEMP.	+20°



DATE: 10/04/06

DRAWING #

REVISION

PROJECT #

ORDER #



P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

CUSTOMER:

BSD-8 SC

STANDARD WIRING DIAGRAM

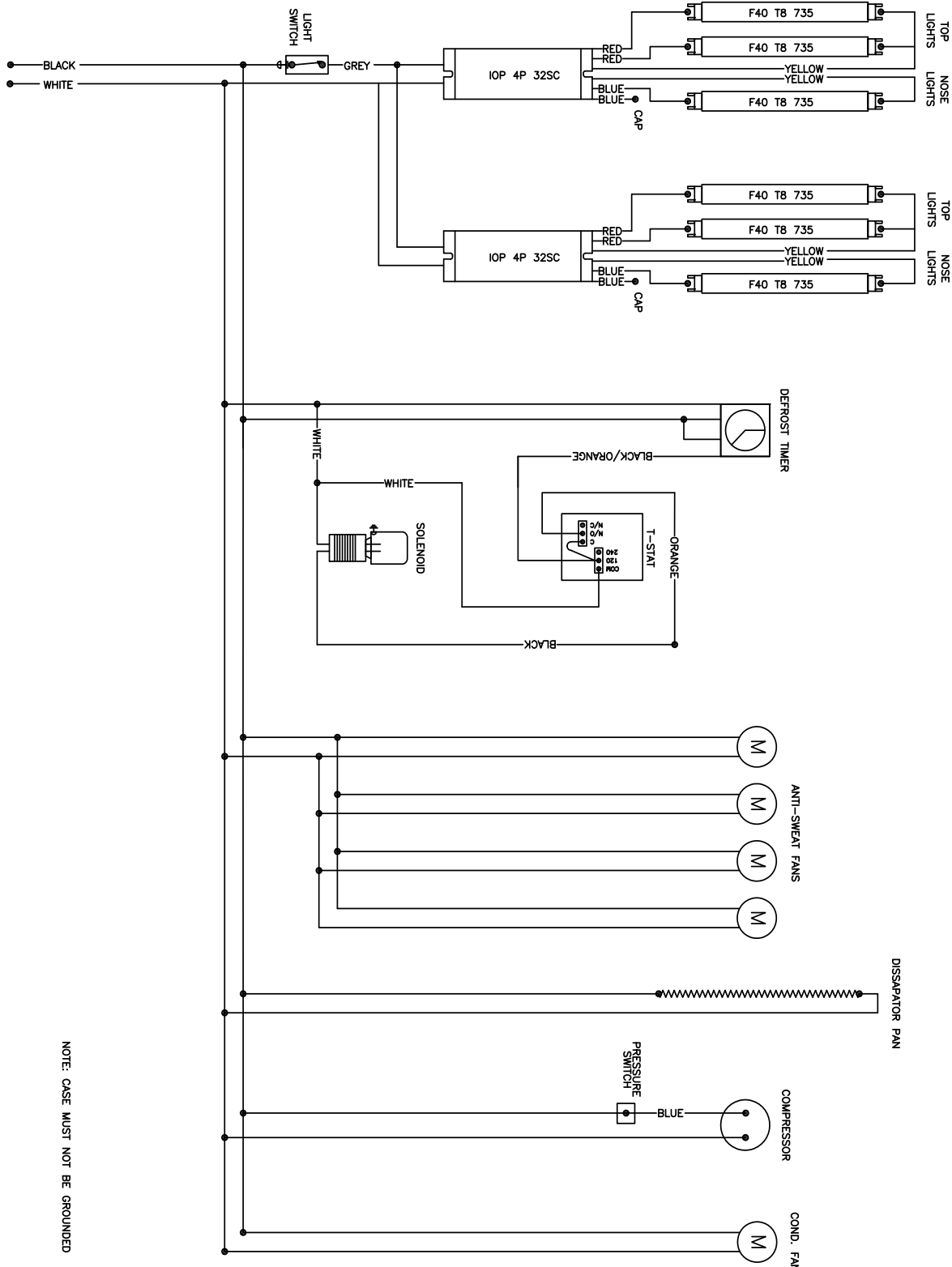
DRAFTER

SCALE
NONE

APPROVED BY

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	21.04
BTU'S	425
EVAP. TEMP.	+15°

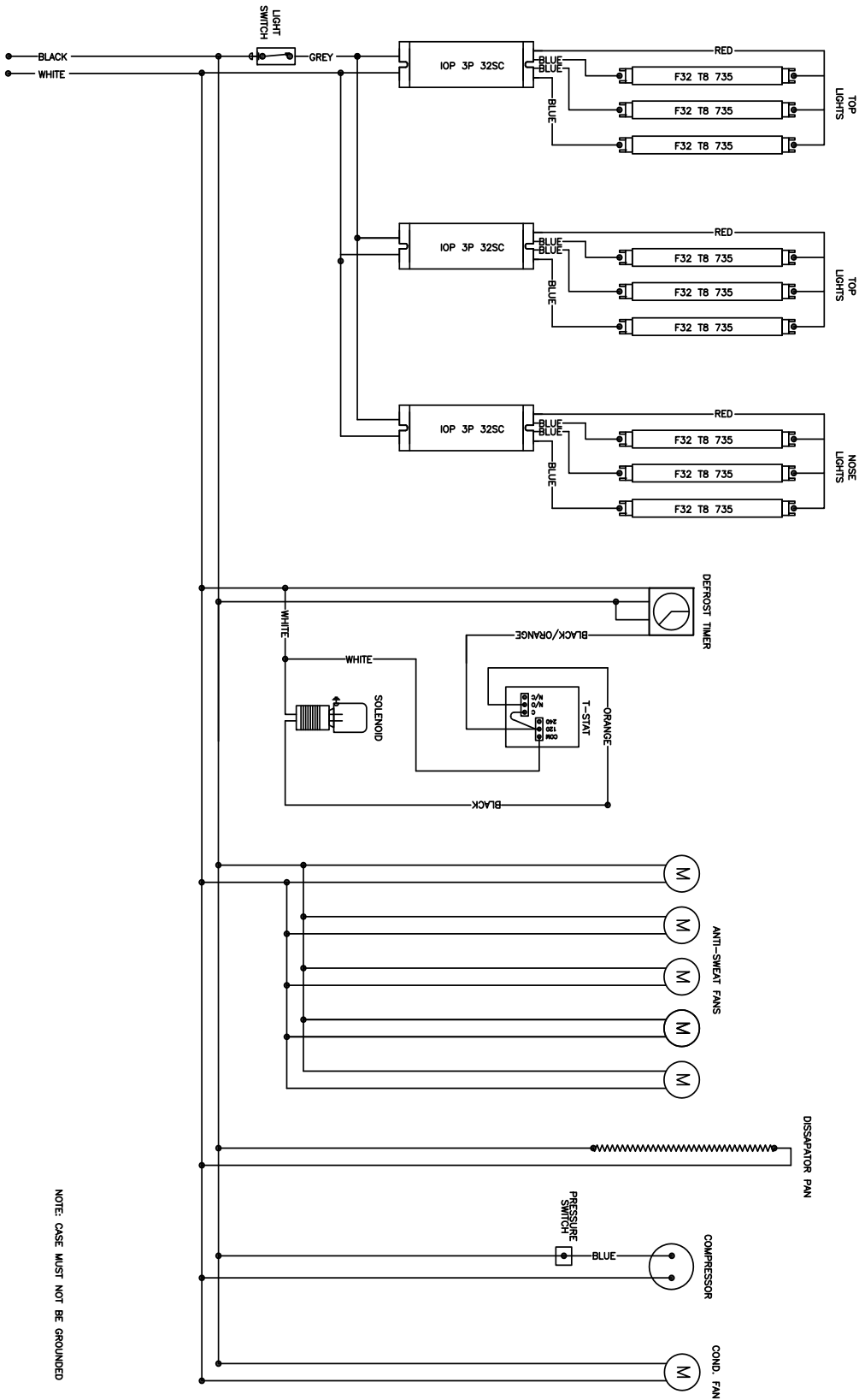


NOTE: CASE MUST NOT BE GROUNDED

DATE:	10/03/06	REVISION	---	PROJECT #	ORDER #	Barker	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BMD-G 10 SC	DRAFTER	SCALE	NONE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM				

NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	24.5
BTU'S	425
E.V.A.P. TEMP.	+15°



DATE: 10/03/06

REVISION

PROJECT #

ORDER #

CUSTOMER: BMD-G 12 SC

DRAFTER

APPROVED BY

DRAWING #

PROJECT #

ORDER #

STANDARD WIRING DIAGRAM

SCALE

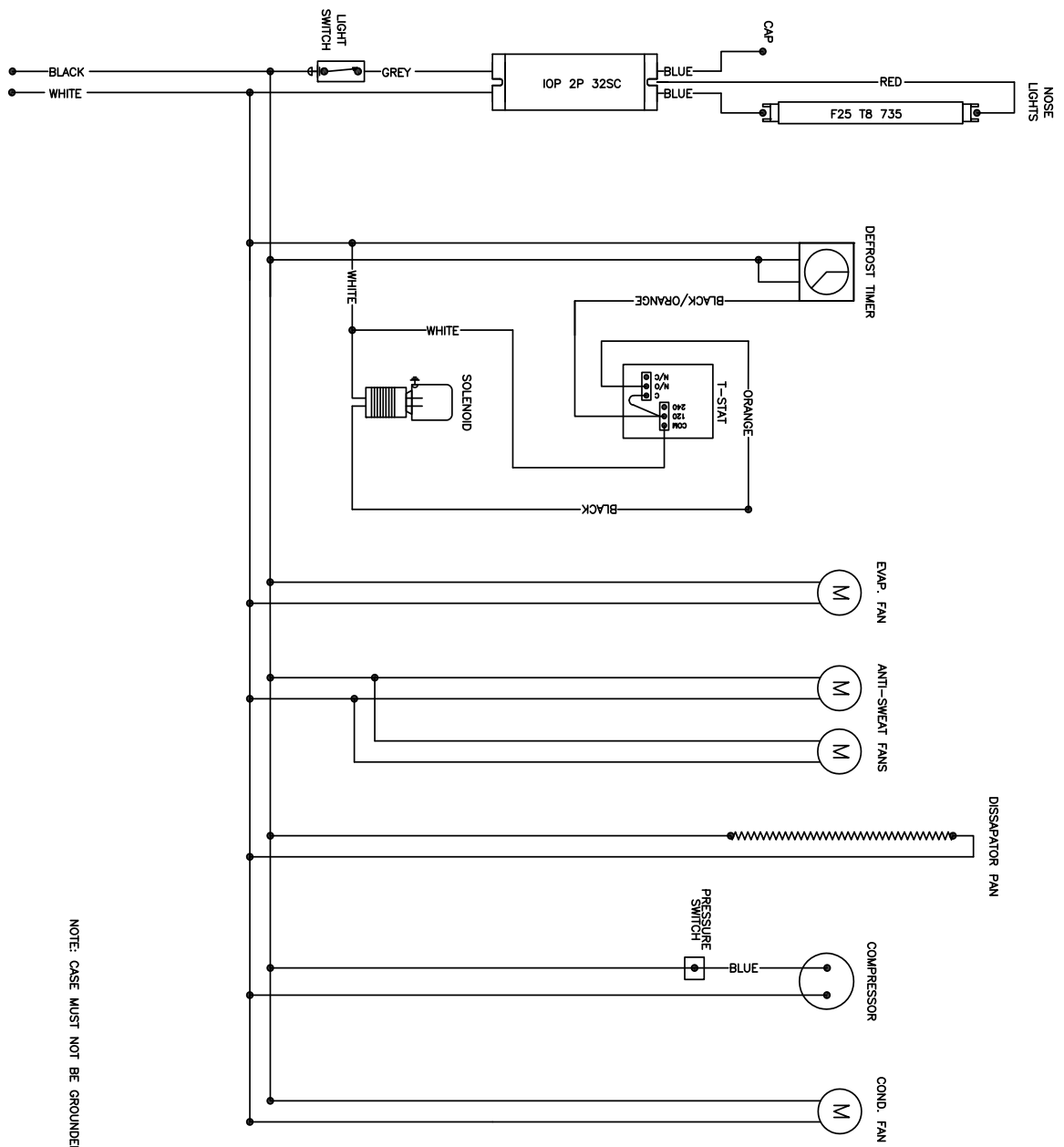
NONE



P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	13.06
BTU'S	450
EVAP. TEMP.	+20°

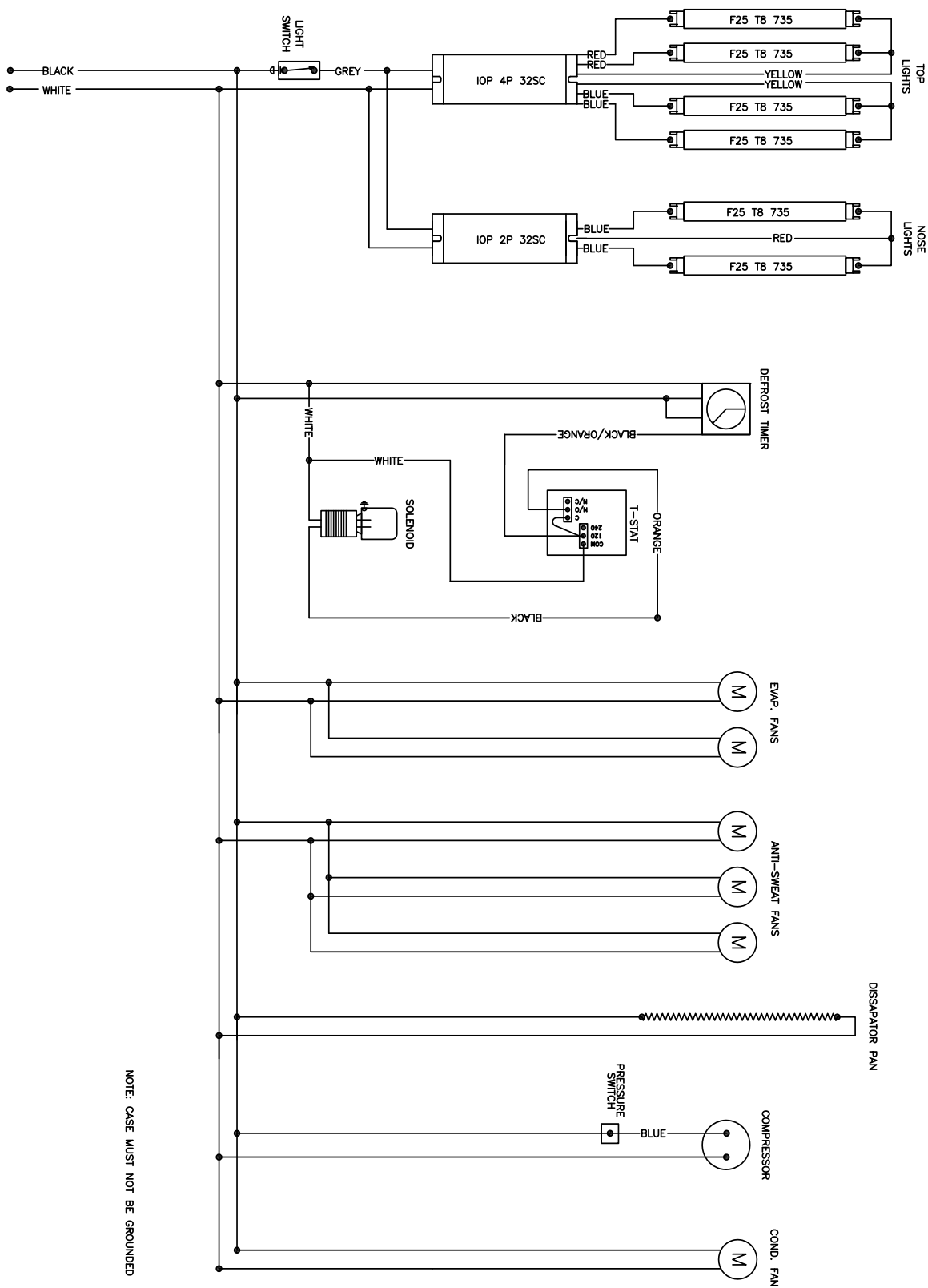


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	Barker Co	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BSD-4 SC	DRAFTER	SCALE	NONE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM				

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	19.73
BTU'S	450
EVAP. TEMP.	+20°

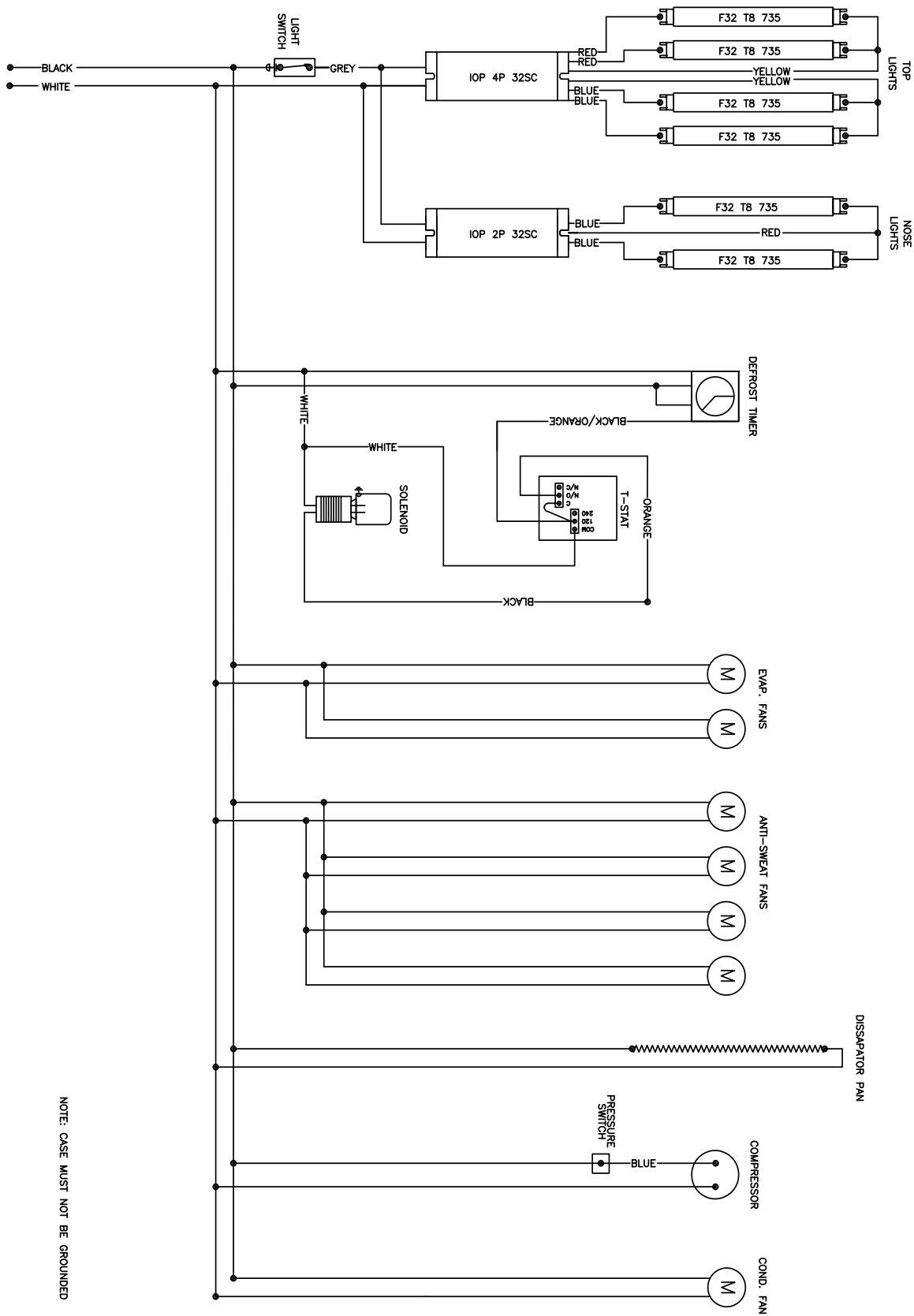


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #	Barker Co.	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BSD-6 SC	DRAFTER	SCALE	NONE	APPROVED BY
DRAWING #								STANDARD WIRING DIAGRAM					

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	21.84
BTU'S	450
EVAP. TEMP.	+20°

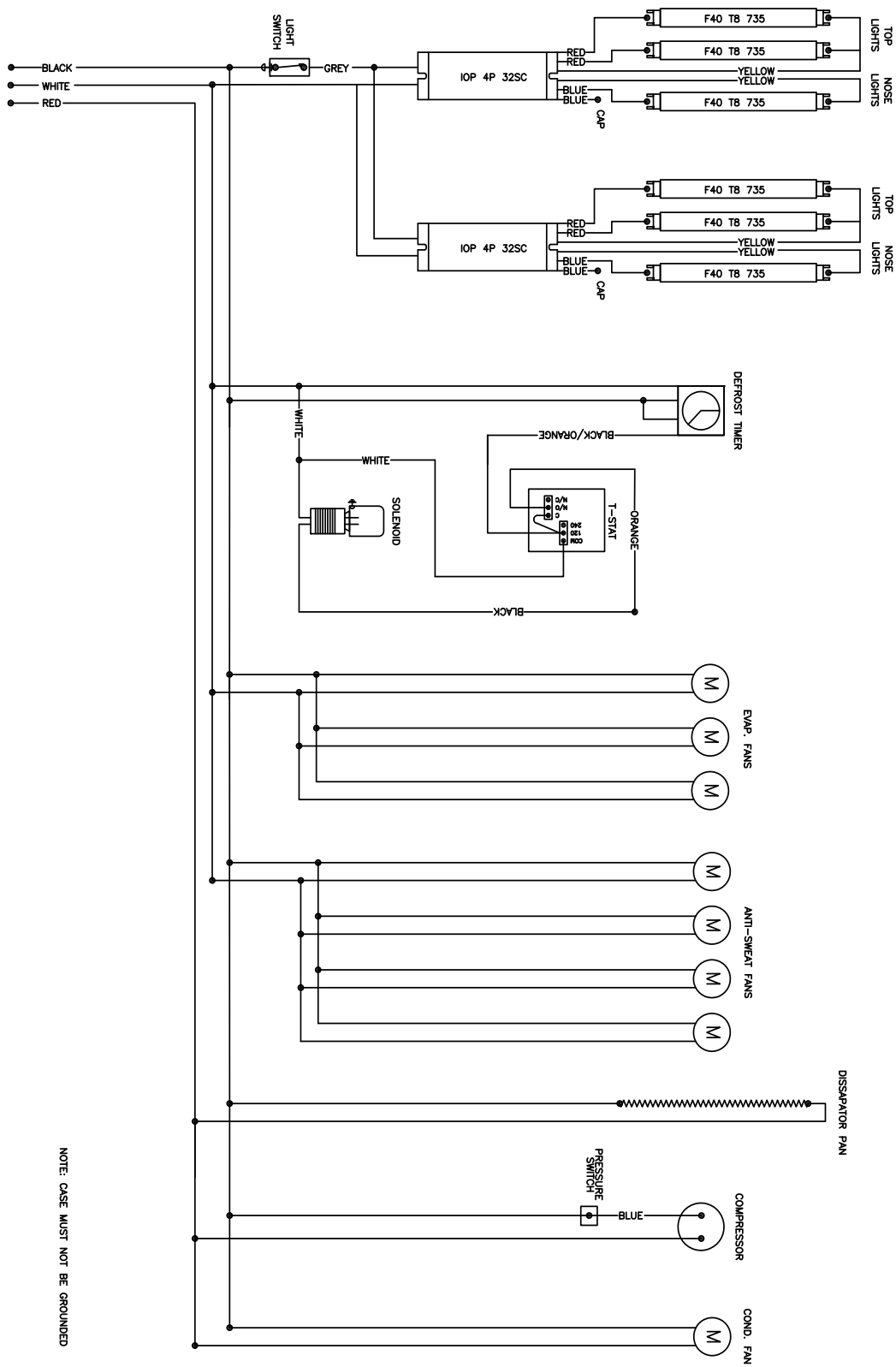


DATE:	10/04/06	REVISION	---	PROJECT #		CUSTOMER:	BSD-8 SC	DRAFTER		APPROVED BY	
-------	----------	----------	-----	-----------	--	-----------	----------	---------	--	-------------	--

DRAWING #		ORDER #		P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776				STANDARD WIRING DIAGRAM			SCALE NONE
-----------	--	---------	--	---	--	--	--	-------------------------	--	--	---------------

NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-208 1-60
AMPS	16.19
BTU'S	450
E.V.A.P. TEMP.	+20°

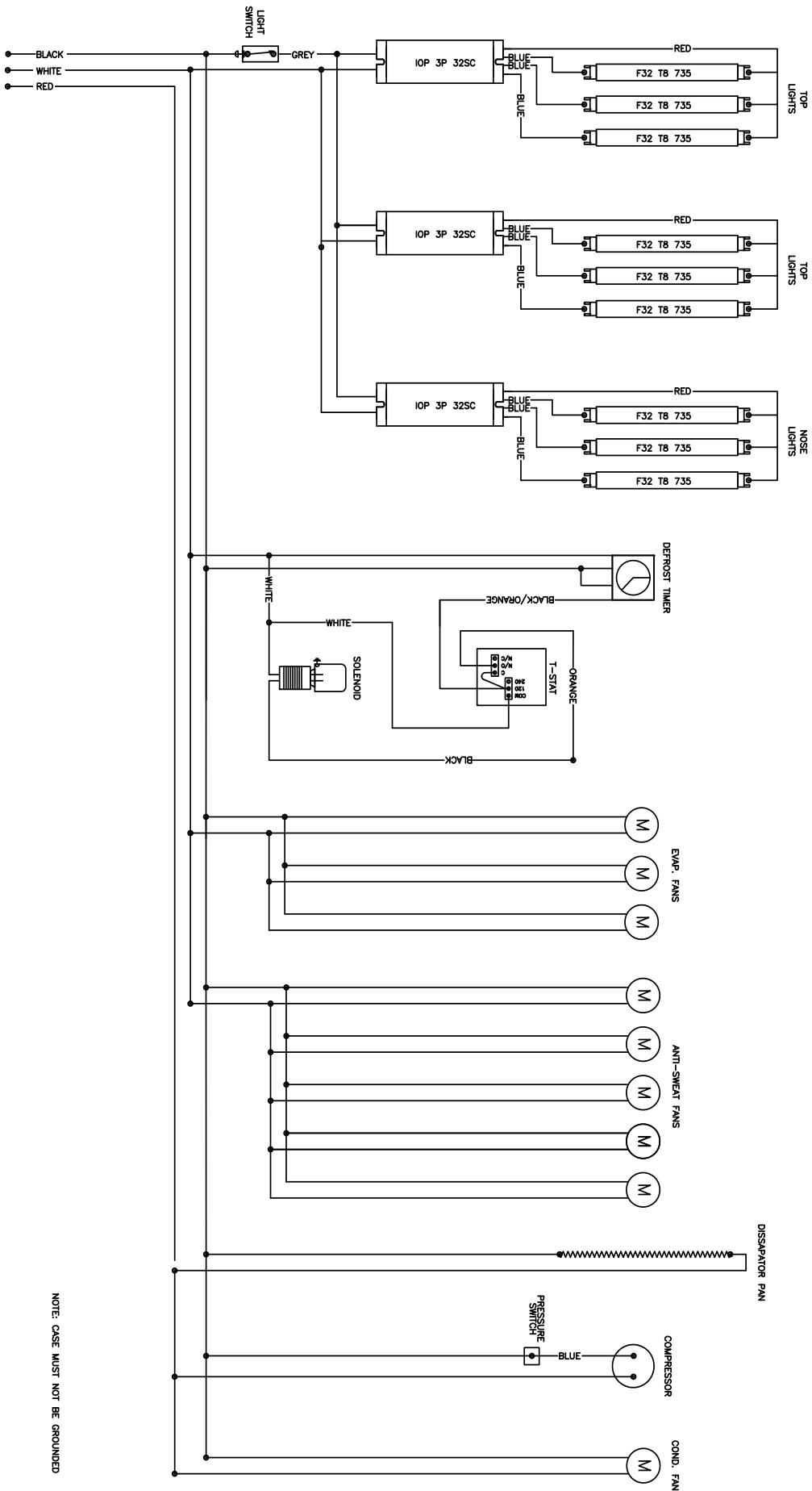


NOTE: CASE MUST NOT BE GROUNDED

DATE:	10/03/06	REVISION	—	PROJECT #	ORDER #	Burkert	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BSD-10 SC	DRAFTER	SCALE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM		NONE	

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT	120-208 1-60
AMPS	21.8
BTU'S	450
E/A.P. TEMP.	+20°

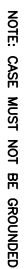


NOTE: CASE MUST NOT BE GROUNDED

DATE:	10/03/06	REVISION	—	PROJECT #	ORDER #	CUSTOMER:	BSD-12 SC	DRAFTER	SCALE	APPROVED BY
DRAWING #							STANDARD WIRING DIAGRAM		NONE	

Borker
P.O. BOX 478
KEOSAUQUA, IA 52565
PHONE: (319)293-5777
FAX: (319)293-5776

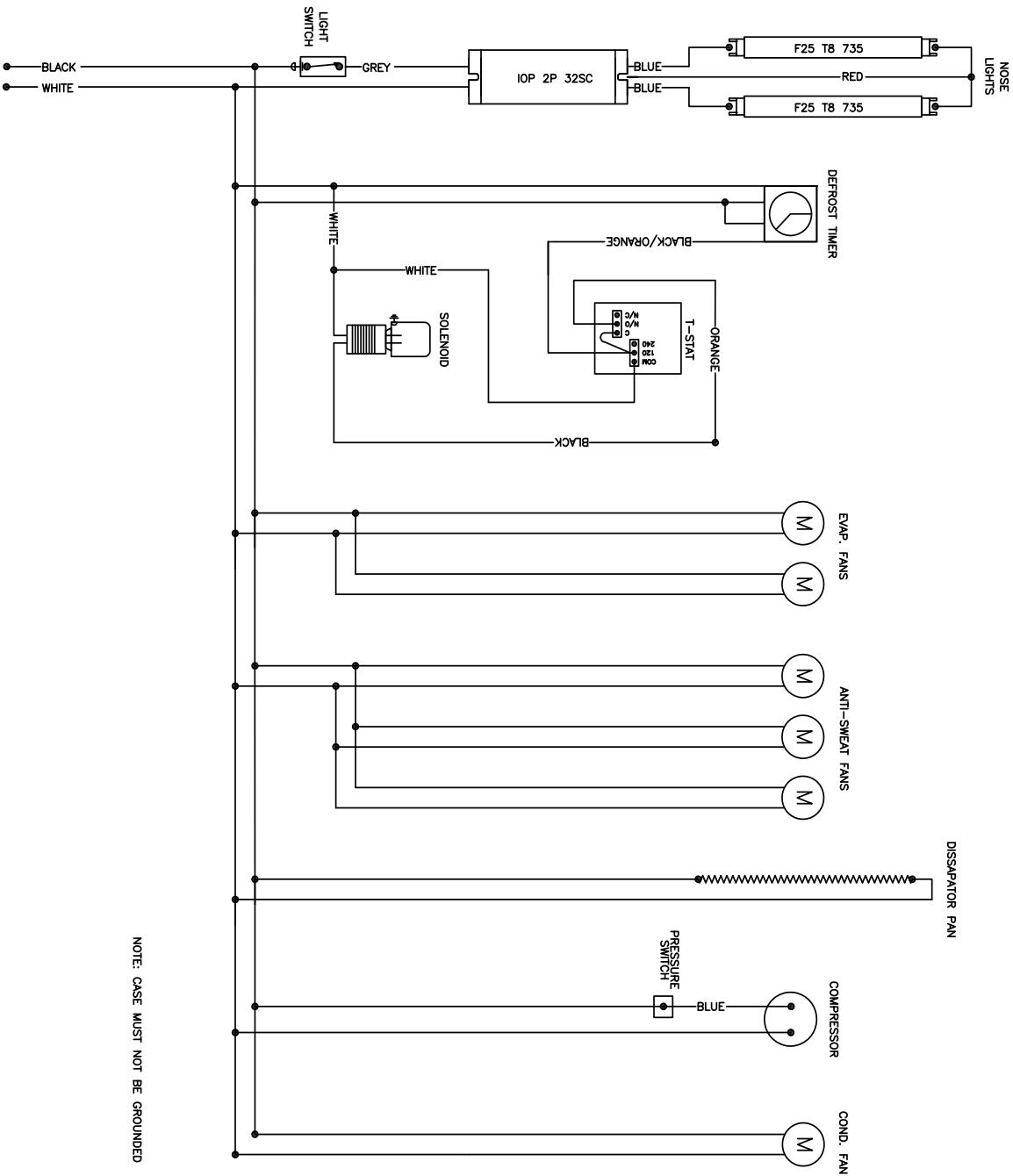
VOLT.	120-1-60
AMPS	12.3
BTU'S	450
EVAP. TEMP.	+20°



APPROVED BY

NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	19.38
BTU'S	450
EVAP. TEMP.	+20°

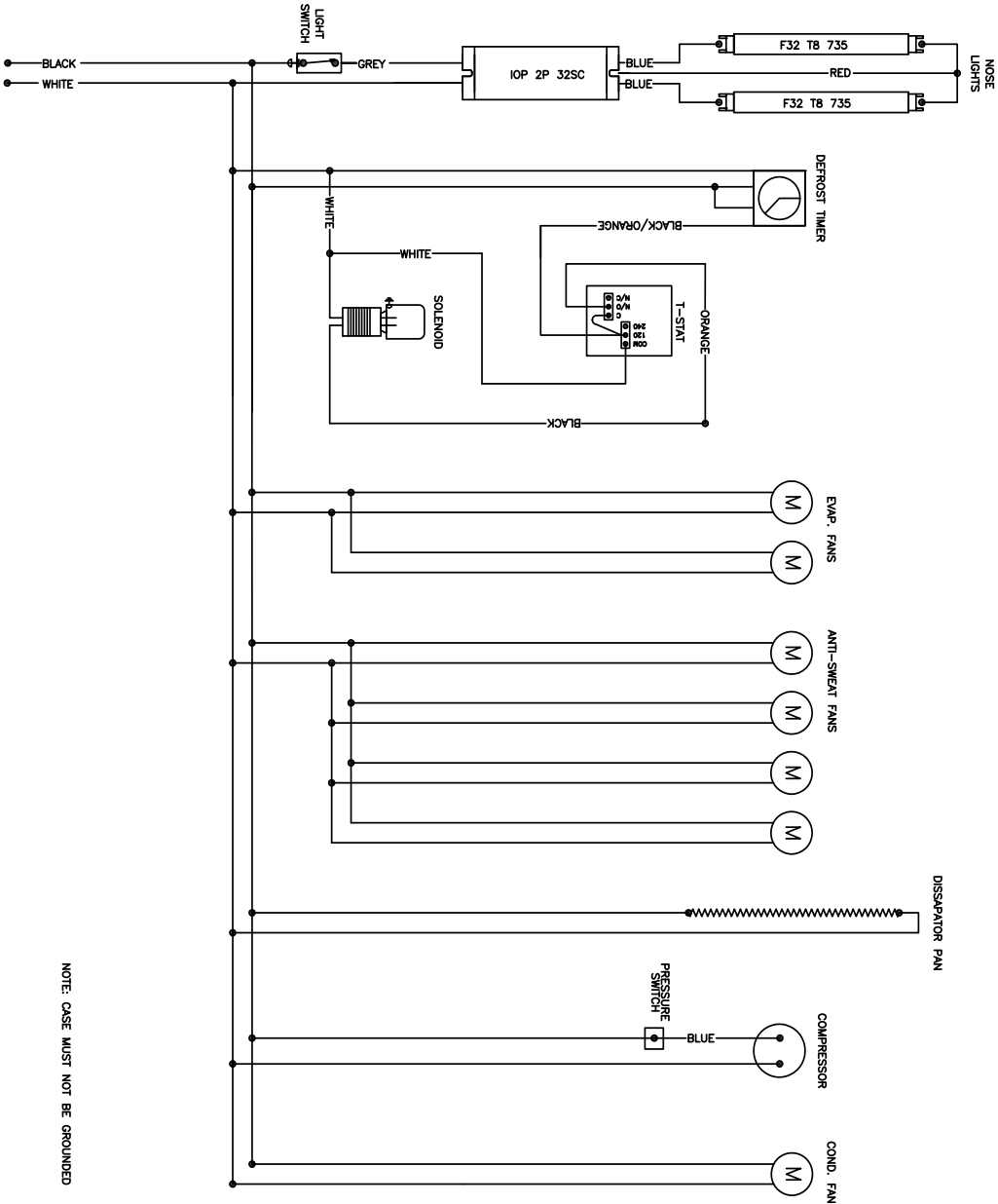


NOTE: CASE MUST NOT BE GROUNDED

DATE:	09/07/06	REVISION	---	PROJECT #	ORDER #		P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BSD-T 6 SC	DRAFTER	SCALE	NONE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM				

NOTE: SHELVES ARE OPTIONAL. CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-1-60
AMPS	20.34
BTU'S	450
E/A.P. TEMP.	+20°

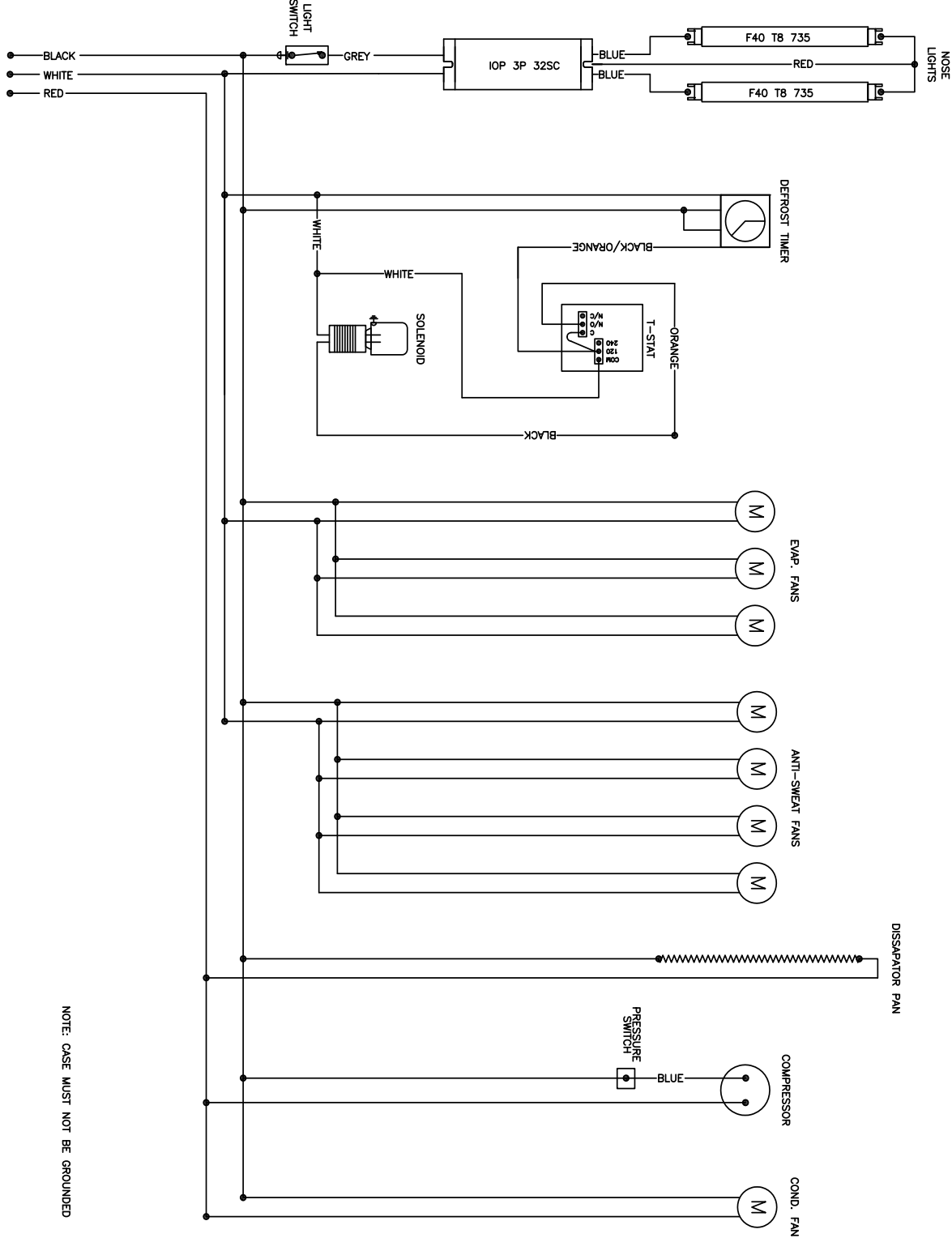


NOTE: CASE MUST NOT BE GROUNDED

DATE:	10/04/06	REVISION	—	PROJECT #	ORDER #	Barker Co. P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BSD-T 8 SC	DRAFTER	SCALE	NONE	APPROVED BY
DRAWING #								STANDARD WIRING DIAGRAM				

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-208 1-60
AMPS	13.85
BTU'S	450
E.V.A.P. TEMP.	+20°

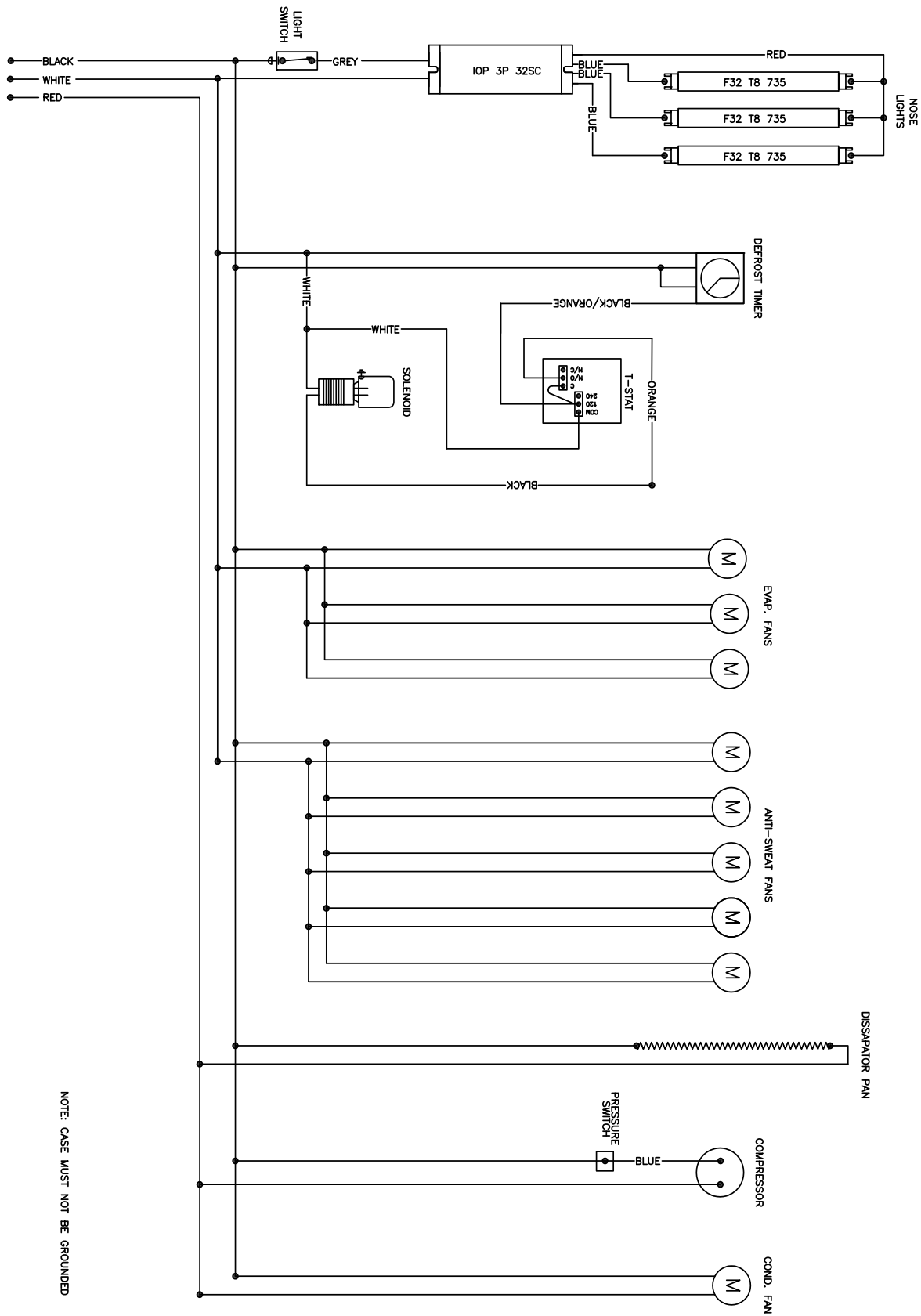


NOTE: CASE MUST NOT BE GROUNDED

DATE:	10/03/06	REVISION	—	PROJECT #	ORDER #	Barker Co.	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BSD-T 10 SC	DRAFTER	SCALE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM			

NOTE: SHELVES ARE OPTIONAL CASE MAY OR MAY NOT BE EQUIPPED WITH UNDER SHELF LIGHTING.

VOLT.	120-208 1-60
AMPS	14.45
BTU'S	450
EVAP. TEMP.	+20°



NOTE: CASE MUST NOT BE GROUNDED

DATE:	10/03/06	REVISION	---	PROJECT #	ORDER #	Barker Co.	P.O. BOX 478 KEOSAUQUA, IA 52565 PHONE: (319)293-5777 FAX: (319)293-5776	CUSTOMER:	BSD-T 12 SC	DRAFTER	SCALE	APPROVED BY
DRAWING #									STANDARD WIRING DIAGRAM		NONE	

Maintenance Information

Cleaning

Case Exterior

Clean surfaces frequently with warm water and mild detergent. Do not use strong alkali solutions, steel wool, or abrasive cleansers.

Non-Glare Glass

Non-glare glass surfaces are coated to reduce the glare from lighting. Care must be taken not to scratch the coating. Use the following products only.

Cleaning Cloths

Scotch-Brite High Performance Cloth - manufactured by 3M and available in most grocery stores under the name Scotch-Brite Microfiber Cleaning Cloth in a 12" x14" size. This cloth is washable and may be reused as long as it remains clean.

Spontex Microfibre Cleaning Cloth - distributed by Spontex and available in most grocery stores under the same name in a 15.75" x 12" size. This cloth is washable and may be reused as long as it remains clean.

The cleaning cloths named above will normally remove dust, grease, oil and fingerprints without the need for cleaning fluids. A light spray of the cleaning fluids listed below will reduce the time required for cleaning.

Cleaning Fluid - for more difficult cleaning jobs, these products are recommended:

Windex - standard product only (extra-strength or specialty products may not be suitable)

Glass-Plus - standard product only (extra-strength or specialty products may not be suitable)

Warm Water

DO NOT USE the following types of materials can be used for cleaning glass with anti-reflective coatings.

Coarse Paper Towels

Scouring Pads or Powders

Steel wool or Steel Fiber Materials

Blades

Acidic or highly Alkaline detergents

Fluorine based detergents

Case Interior

All shelving and lower deck can be removed for cleaning (See installation instructions for removing and setting shelving). Check to make sure the case drain(s) are not clogged. Clean interior with warm water and a mild detergent. A sanitizer should be used after washing to eliminate bacteria. Rinse thoroughly being careful not to flood drain system. Avoid spraying water directly into electrical connections. **DO NOT USE A HIGH PRESSURE WATER HOSE. MAKE SURE FANS ARE SHUT OFF WHEN CLEANING THE INTERIOR OF THE CASE.** Drains should be cleaned once a month.

Evaporator Coil

Clean as needed.

Condenser Coil

FAILURE TO CLEAN COILS WILL VOID WARRANTY. Clean condenser coil every three months or as needed with a whisk broom or vacuum. Disconnect power when servicing. **FINS ON CONDENSER COIL ARE SHARP!**

Condensate Heater (Evap-O-Way)

Add one teaspoon of scale remover or white vinegar to condensate heater pan once every three months or as needed. Heater is designed for 75° and 50% relative humidity. The condensate pan may overflow if design limits are exceeded.

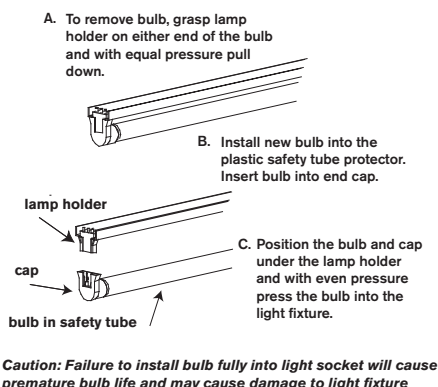
Seafood Application

Plexiglas should be removed for cleaning. Reinstall Plexiglas by placing in front of case. Ice will hold it in place. **PLEXIGLAS MUST BE IN PLACE TO KEEP ICE OUT OF AIR SCREEN.**

Light Replacement

The fluorescent lights in this case are furnished with plastic safety shields and end caps. When replacing fluorescent lamps, be certain to reinstall safety shield and caps. *(See illustration).* If the bulb is not fully seated the lights will not operate. **BE SURE BULBS ARE FULLY SEATED.**

The light switch is mounted to the right side of the ceiling. See mechanical drawing for ballast box location.



Load Limits

DO NOT place product in merchandisers until all refrigeration controls have been adjusted and are at the proper operating temperature. **DO NOT** place product above load limits or in such a way that the discharge or return air grill are blocked. This will effect the performance of the case and effect the defrost system.

Service

WARNING!

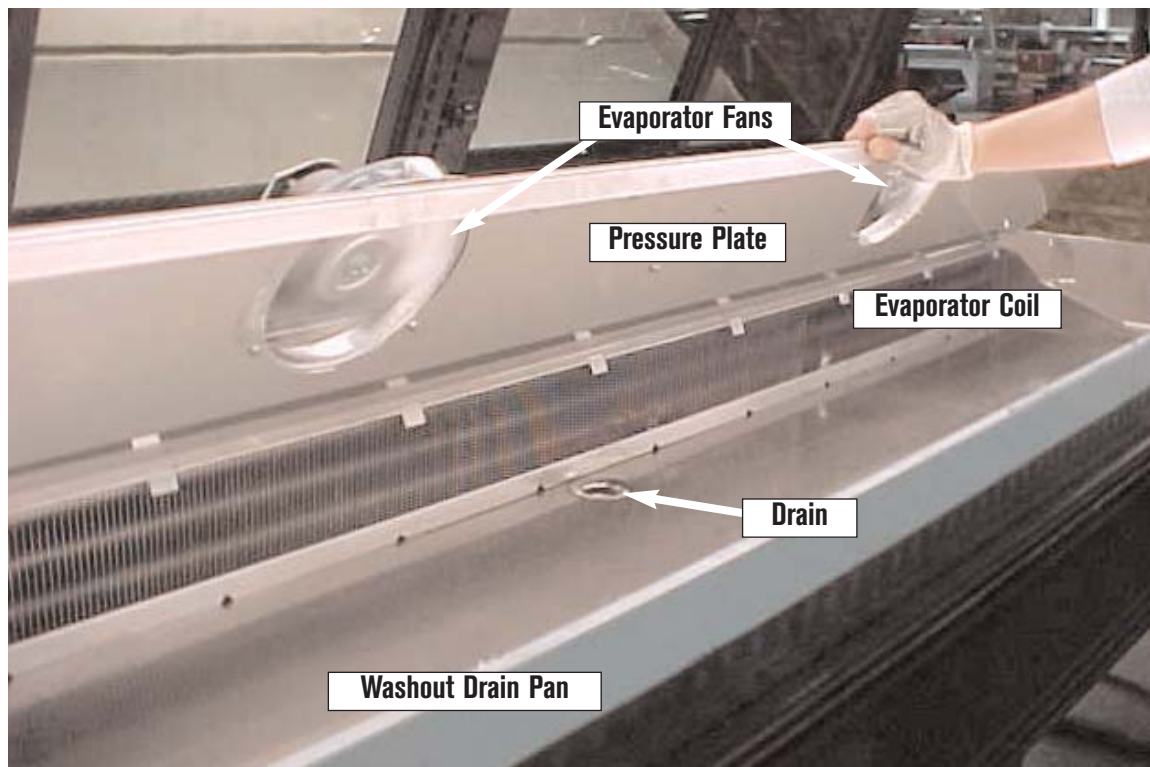
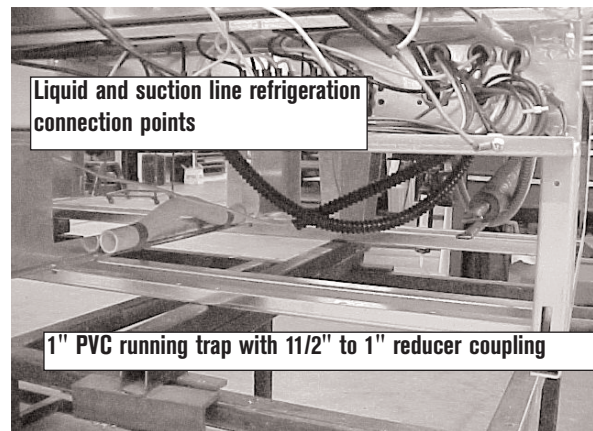
DISCONNECT THE ELECTRICAL POWER WHEN SERVICING OR REPLACING ANY ELECTRICAL COMPONENT.

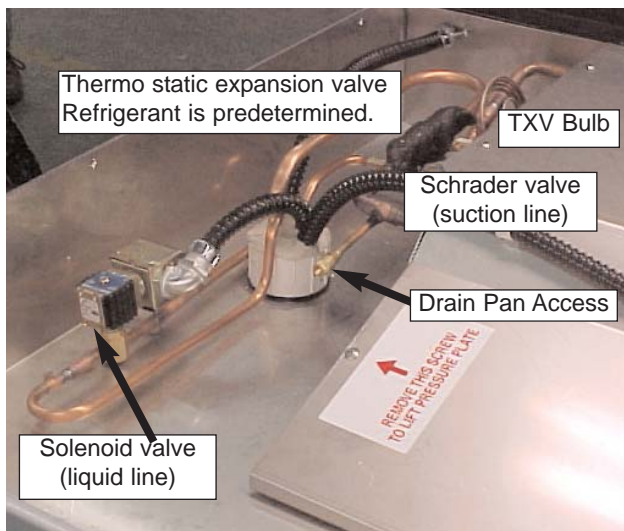
Evaporator Coil Area

To access Evaporator Coil area, remove bottom deck by lifting up and out to expose pressure plate cover and evaporator fans. Remove screws as shown to the left and lift pressure plate cover up.



Drain and refrigeration connections are located on the customer left side at the back of the case.





Service Instructions

1. Read the Installation and Service manual.
2. See the trouble-shooting guide in the event of problems.
3. If service is needed contact Barker Company for an authorized service person in your area. Before calling for service locate the case model and serial number on the data tag located on the customer left, outside back of the case, the customer left, inside top of the case, or contact the factory for location.

Troubleshooting Guide

Problem	Cause	Action
Case temperature is too warm.	<p>Case is in defrost.</p> <p>Product load may be over its limits blocking airflow.</p> <p>Ambient conditions may be affecting the case operation.</p> <p>Condensing coil or evaporator coil is clogged or dirty.</p>	<p>Review T-Stat settings.</p> <p>Redistribute product.</p> <p>Check case position in store. Is the case located near an open door, window, or air conditioning vent?. RH should not be over 50% and temperature above 75°.</p> <p>Clean coil.</p>
Case temperature is too cold.	<p>The T-Stat Temp is set too low.</p> <p>Ambient conditions may be affecting the case operation.</p> <p>Condensing coil or evaporator coil is clogged or dirty.</p>	<p>Check setting. See factory guidelines.</p> <p>Check case position in store. Is the case located near an open door, window, or air conditioning vent? RH should not be over 50% and temperature above 75°.</p> <p>Clean coil.</p>
Condensation on glass.	<p>Inadequate air circulation.</p> <p>Product load may be over its limits blocking airflow.</p> <p>Ambient conditions may be affecting the case operation.</p>	<p>Check grill on die board for adequate airflow over glass.</p> <p>Redistribute product.</p> <p>Check case position in store. Is the case located near an open door, window, or air conditioning vent? RH should not be over 50% and temperature above 75°.</p>
Water has pooled under case.	<p>Case drain is clogged.</p> <p>Check PVC drains under case for leaks.</p> <p>Evaporator pan is overflowing.</p>	<p>Clear drain.</p> <p>Repair as needed.</p> <p>Check electrical supply to dissipater pan. Check float assembly. (Note: Cases equipped with electric dissipater pans should NEVER have food products washed or poured into the drain as it will result in damage to the heating element.)</p>
Frost or ice on evaporator coil.	<p>Check evaporator fans.</p> <p>Defrost clock doesn't work.</p>	<p>Check electrical connections. Have unit serviced by a qualified service technician.</p>

Barker Sales & Service Department

IMPORTANT INFORMATION!

FOR PROMPT SERVICE WHEN CONTACTING THE FACTORY FOR SUPPORT, BE SURE TO HAVE CASE MODEL AND SERIAL NUMBER HANDY.

(THIS INFORMATION IS LOCATED ON THE DATA TAG ATTACHED TO THE CASE. SEE BELOW FOR DATA TAG LOCATIONS)

For any warranty or service issues not covered by this manual, for tech support, or for warranty service calls, please contact the Barker Service Manager in your area.

Jody Jones - Eastern Service Manager: (319) 293-8308

- Connecticut
- Delaware
- Florida
- Georgia
- Maine
- Maryland
- Massachusetts
- New Hampshire
- New Jersey
- New York (Eastern)
- North Carolina
- Pennsylvania (Eastern)
- Rhode Island
- South Carolina
- Vermont
- Virginia

Bill Connor - Midwestern Service Manager: (319) 293-8307

- Alabama
- Arkansas
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Michigan
- Mississippi
- Missouri
- Nebraska
- New York (Western)
- Ohio
- Oklahoma
- Pennsylvania (Western)
- Tennessee
- West Virginia

Gregg Rupe - 2nd Midwestern Service Manager: (319) 293-8324

- Alaska
- CANADA
- EUROPE
- Hawaii
- Illinois
- MEXICO
- Minnesota
- North Dakota
- South Dakota
- Texas
- Wisconsin

Gary Winslow - Western Service Manager: (319) 293-8306

- Arizona
- California
- Colorado
- Idaho
- Montana
- Nevada
- New Mexico
- Oregon
- Utah
- Washington
- Wyoming

Parts

Ordering Procedure

1. Contact the Service Parts Department
Melissa Marshall
703 Franklin Street
PO Box 478
Keosauqua, IA 52565
Tel: 319-293-8323
Fax: 319-293-8377
mmarshall@barkercompany.com
2. Provide the serial number of the case containing the part.
To locate the serial number look on the data tag located on the customer left, outside back of the case, the customer left, inside top of the case, or contact the factory for location.
3. If parts are to be returned for credit, contact the Parts Department. Do not send parts without authorization.



BEFORE SERVICING

**ALWAYS DISCONNECT ELECTRICAL
POWER AT THE MAIN DISCONNECT
WHEN SERVICING OR REPLACING
ANY ELECTRICAL COMPONENT.**



703 Franklin Street
P.O. Box 478
Keosauqua, Iowa 52565

Tel:319/293-3777
Fax:319/293-3776

www.barkersales.com

One Year Factory Warranty

For all shipments with original delivery points in the continental U.S. but with a final destinations outside the continental U.S., Barker Company warrants to the original purchaser that every new Barker merchandiser, the cabinet and all parts thereof, to be free from defects in material or workmanship, under normal use and service, for a period of one (1) year from the date of original installation or 15 months after shipment date from Barker Company, whichever occurs first.

Barker Company will replace, in its sole and absolute discretion, without cost to the original equipment purchaser, any part or parts thereof, which inspection by Barker Company or proven to the satisfaction of the Company to have been defective. Replacement parts will be shipped to the original point of shipment. Any installation and / or service work will be at the expense of the original purchaser.

For all shipments within the continental U.S. , Barker Company warrants to the original purchaser that every new Barker merchandiser, the cabinet and all parts thereof, to be free from defects in material or workmanship, under normal use and service, for a period of (1) year from the date of original installation or 15 months after shipment date from Barker Company, whichever occurs first.

Barker Company will replace, in its sole and absolute discretion, without cost to the original equipment purchaser, any part or parts thereof, which inspection by Barker Company or proven to the satisfaction of the Company to have been defective.

All warranty service work must be pre-authorized by Barker Company (800-814-0446). Barker Company reserves the rights to designate the service provider, time in which labor is to be performed and specify amount of time per warranty problem.

COMPRESSOR WARRANTY: The standard compressor warranty is for a period of one (1) year from the date of original installation or 15 months after shipment date. A four-year compressor warranty extension is available at an additional cost to the original purchaser/user. If compressor issues arise after the initial warranty period expires, please provide the Company with the applicable serial number to determine whether a four-year compressor warranty extension was purchased prior to the ship date.

What is NOT Covered by Factory Warranty

This Limited Warranty also does not apply to any equipment, or parts thereof, that has been subject to misuse, neglect, accident, misapplication or problems caused by improper installation and/or lack of periodic maintenance. This Limited Warranty does not include glass breakage.

Barker Company shall under no circumstances be responsible for any loss, cost of damage beyond repair or replacement, whether incidental or consequential, other than specifically identified in the foregoing Limited Warranty including but not limited to any spoilage, shrinkage or damage to commodities or product during installation or operation of the Company's equipment caused by failure of refrigeration, or loss of business resulting therefrom.

WARRANTY CLAIMS. All claims should include: the serial number of the cabinet, proof of purchase, date of installation, and all pertinent information supporting the existence of the alleged defect. Any action for breach of these warranty provisions must be commenced within one (1) year after that cause of action has accrued.

WARRANTY REGISTRATION CARD

This card must be mailed
immediately after installation
date to the address below for
warranty to be in effect.



P.O. Box 478
Keosauqua, IA 52565

(Name of company purchasing merchandiser)

(Type of business)

(City & State of Purchaser)

(Cabinet Serial #)

(Date of installation)

(Signature of store owner)

Failure to forward this Warranty Registration Card within 21 days of installation
VOIDS ANY AND ALL WARRANTIES, whether by contract or at law.